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Telephony

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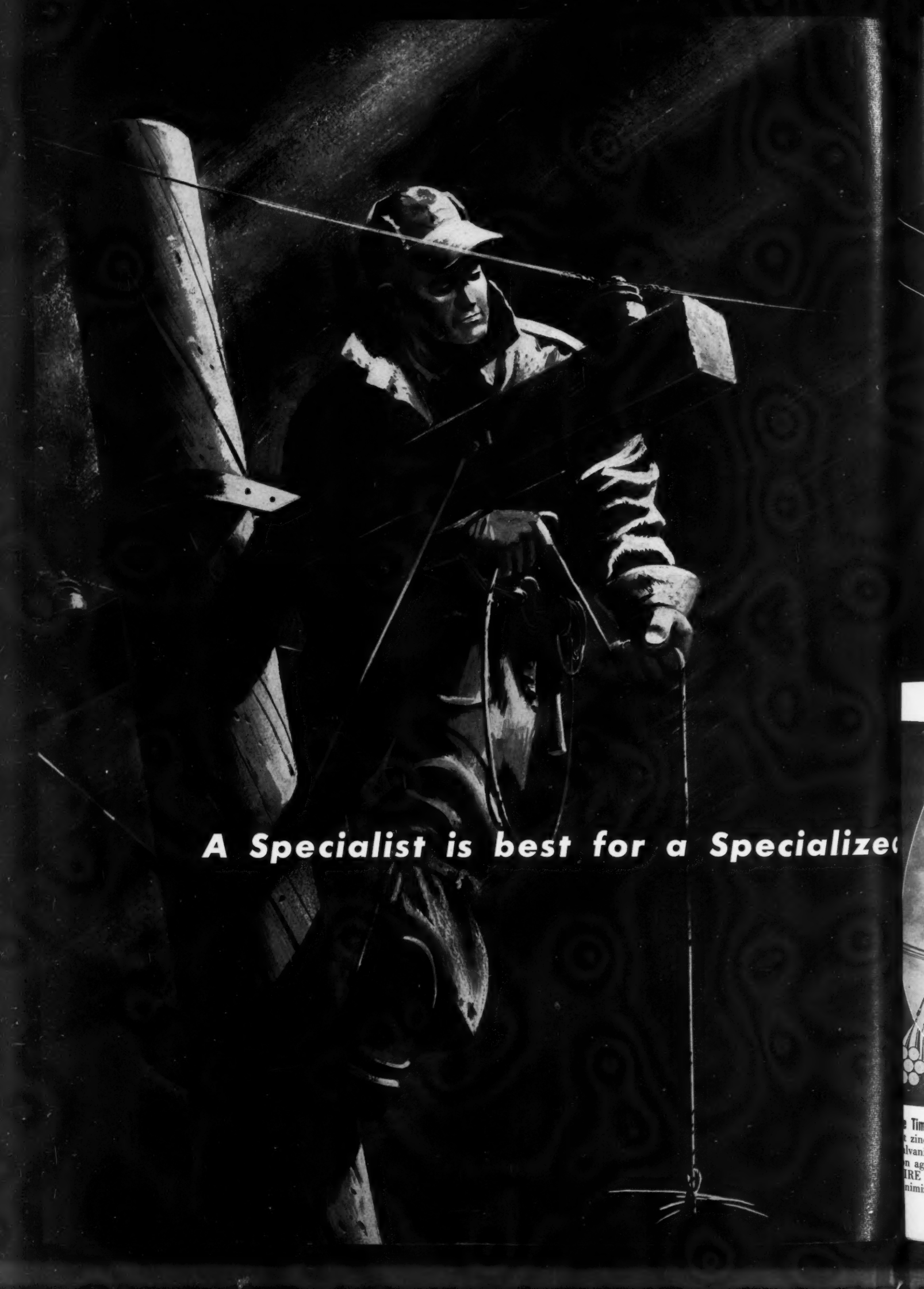
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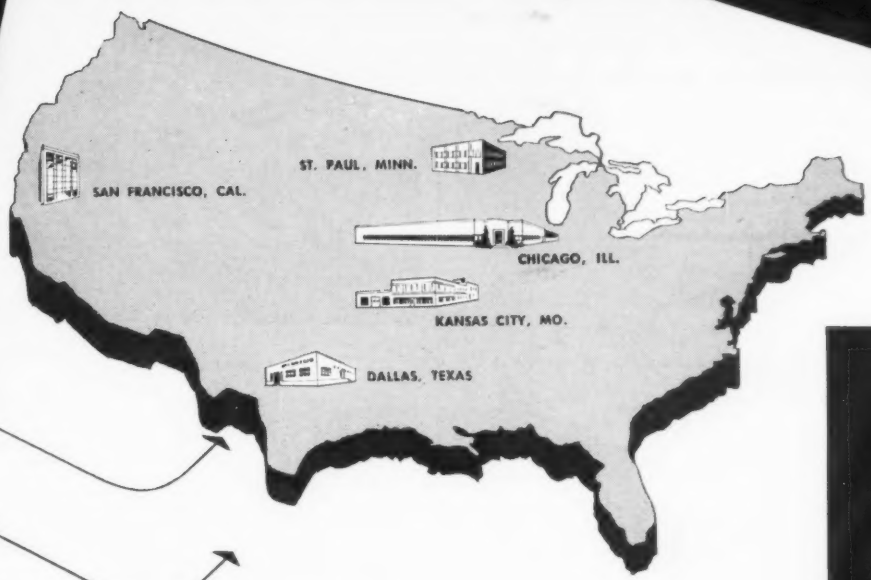

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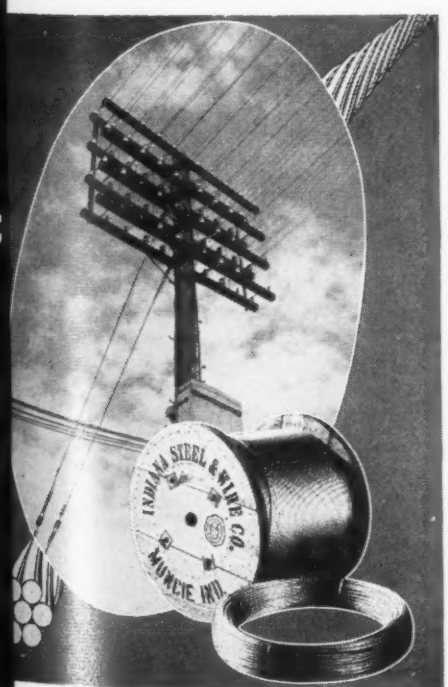

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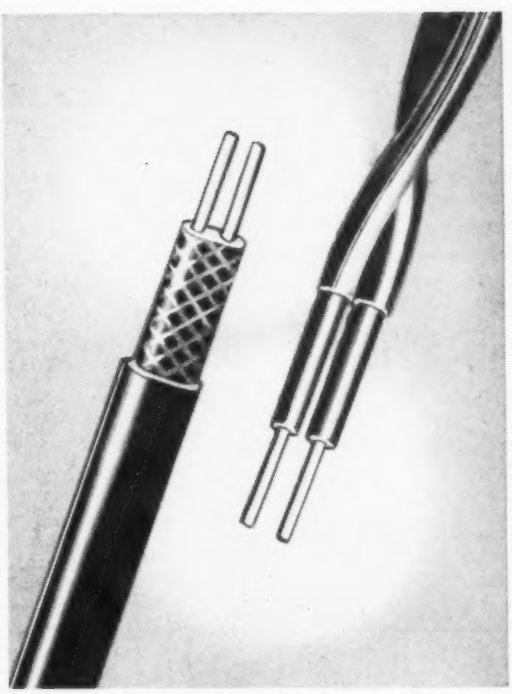

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FLASHES AND PLUGS

PLEASE OMIT FLOWERS. The *Chicago Tribune's* "White Collar Girl" recently ran an item called "Telephonitis" which said:

"Things telephonic have improved since a notice, unearthed by Mildred Bruder of the Chicago Public library, first appeared in the telephone directory on June 26, 1878:

" 'To call the central office, turn the crank on the bell strongly, at the same time pressing upwards the knob on the bottom. The call will be answered by the ringing of your bell. Then turn the switch to the right hand button and use your telephone. When you are called, answer by ringing your bell the same number of times as your call (if your call is three, answer three) then turn the switch to the right and use your telephone. Speak clearly with lips gently touching the telephone. When you have finished, turn the switch back to the left and hang the telephone on the hook provided on the bell.

" 'In requesting connection with other subscribers, first give the name of your own company, then the name and location of parties wanted. While waiting, turn your switch to the left, and as soon as the connection is made, the operator at the central office will ring your bell once as a signal.' "

• • •

A HEART KINPUMP JUST SO LONG. "I want a pumpkin recipe to please my brother," the woman caller told a newspaper switchboard operator. "We don't east pastry . . . just want one for plain pumpkin."

It was Saturday, and the food editor was not at her desk, so the operator made up a recipe, item by item, as she relayed it to the woman.

Came a call from the same woman a week later.

"Is this the operator who gave me the pumpkin recipe? Did you know my brother died?" she sobbed.

The operator wiped perspiration from her forehead. "No."

"Well, my brother died of a heart attack . . . the recipe was fine. I'd like some additional copies of the paper which had his obituary."

• • •

CAREER BOY. Bill—"How did you make out on your first day in the business world?"

Will—"Well, I started out this morning thinking the world definitely had an opening for me."

Bill—"Then what happened?"

Will—"I fell down an open man hole."

• • •

CLEAR, DEAR? She: "I wish you had telephoned before you came. I'm sorry for my appearance."

Bore: "Your appearance?"

She: "Yes, if I had known you were coming, I wouldn't have made one."

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Telephony

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May 9, 1953

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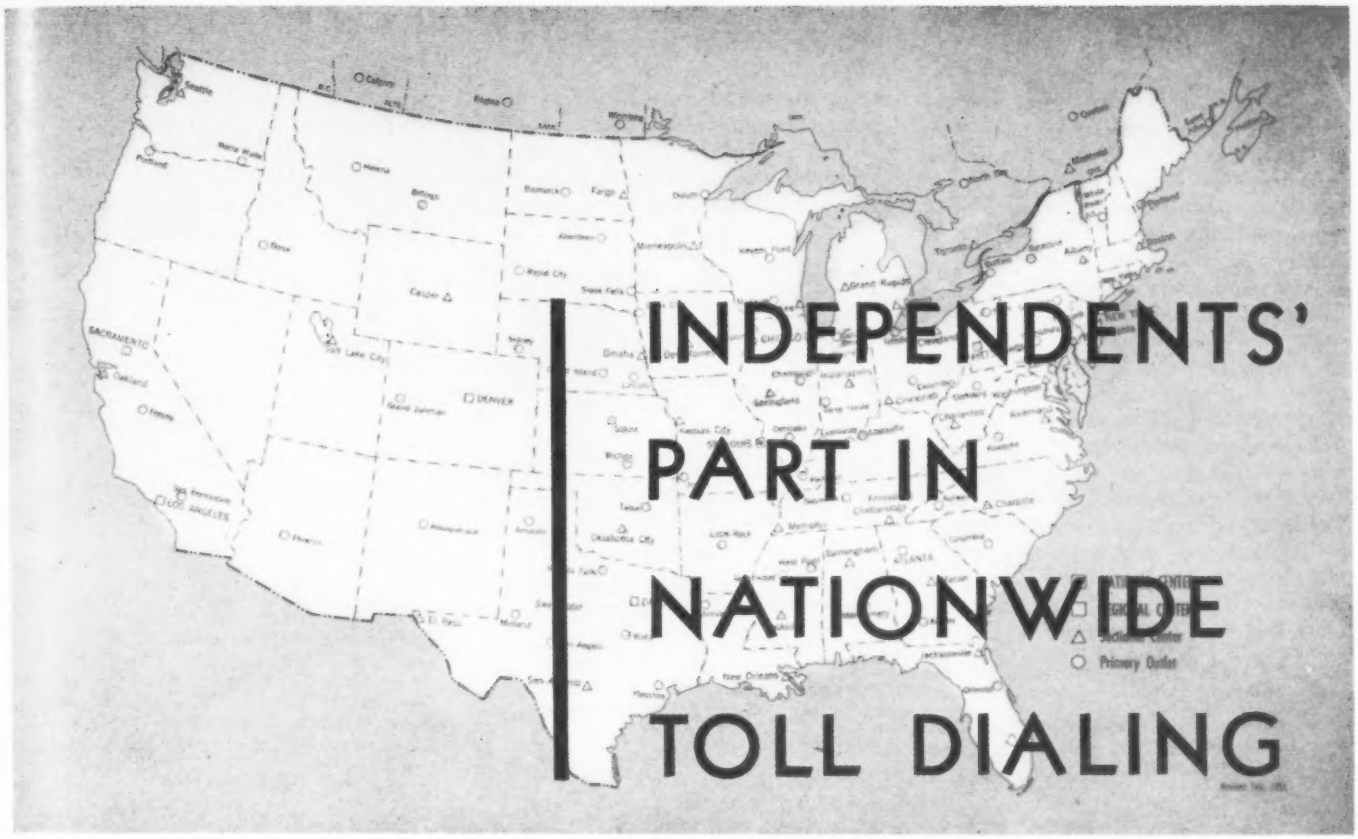


INDEPENDENTS' PART IN NATIONWIDE TOLL DIALING

THE NUMBER of Independent Telephone Company exchanges connected to the nationwide toll dialing network has grown impressively during recent years. At the end of last year about one-quarter of all exchanges connected to this network were Independent operated. [This growth is the result of cooperative effort by Independent and Bell companies to provide faster and improved telephone service, and continuation of this combined effort will assure even greater progress toward the ultimate objectives of nationwide dialing.]

Cooperation between companies is vitally important if the telephone industry is to meet its responsibilities to the public. Perhaps this cooperation is more essential in the telephone industry than in most other businesses. Ample testimony to this "working together" by telephone companies in the United States and Canada is the ever-improving toll service which is probably the best in the world. The common goal of all companies is to provide a faster, more accurate, more economical and more dependable telephone service.

One of the more recent technological advances in providing better service is "Nationwide Operator Dialing." Dialing of long distance traffic on an industry-wide basis has grown literally by leaps and bounds since the adoption of the nationwide dialing plan in the mid-forties.

This growth in the nationwide dialing network has resulted from the coordinated activity of Bell and Independent companies in providing dial equipment in the local offices and at toll centers and major switching centers.

Long before World War II small regional networks of Bell and Independent offices in various parts of the United States and Canada were established for toll dialing. By the end of 1945, about 5 per cent of the long-haul intertoll trunks, those in excess of 25 miles in length, were equipped for intertoll dialing. Since then, in a seven-year period, the growth and conversions have been orderly, the continent has been spanned both by operator and customer dialing and the dial trunks have increased to about 40 per cent of the total. Operator dialing over long-haul routes is far advanced over customer dialing but plans are well under way for expanding this service. About 1,800 exchanges, of which 490 are Independent, are now a part of the nationwide toll dialing network.

The anticipated service advantages are being realized on a day-to-day basis. The average speed of service on dialed traffic is one-third faster than on manually operated toll service. Cut-offs and interruptions in the service on dial connections are just half of those on ring-down operation.

The early experience of Bell and Independent companies with limited toll dialing led to the development of fairly extensive regional dial networks. The service improvements achieved by these regional operations indicated the desirability of inter-regional dialing. Plans were made during and immediately following World War II to connect the existing dial networks to provide nation-wide toll dialing.

The regional networks are rapidly being connected together by the No. 4-type toll crossbar switching equipment installations at switching centers known as "Control Switching Points" (CSP's). At the present time, 19 No. 4-type toll crossbar systems are in service and ultimately, approximately 70 to 80 will be in operation. Presently, approximately 40 per cent of the toll board calls are dialed by the operators. About half of these are short haul toll calls between near-by points and the other half are longer calls between toll centers.

Early planning recognized the need for industry-wide cooperation to meet the many problems relating to intercompany dialing. The nationwide scope of the plans, to realize the full service advantages of toll dialing, implies that every office in the United States and Canada—Bell and Independent—ultimately be equipped to be connected with the network. Provisions are made in the over-all plans for the participation of the Independent companies to the extent they desire to be included. Any company may join in the growing dial network whenever this move fits

in with the development of its own territory and the necessary facilities are available.

An orderly conversion from manual to dial operation has been under way during the last few years. A number of Independent companies, when converting to dial operation, have anticipated participation in the nationwide dialing plan by providing for the additional equipment involved. Under present plans, the industry hopes to complete the transition to nationwide operator toll dialing in the next decade. At this intermediate stage in the program it is difficult to define the scope of the present nationwide dial network. However, for the purpose of this article, exchanges are considered a part of the nationwide network where either or both of the following conditions exist:

(1) Outward toll operators pulse or dial into a No. 4-type system either directly or via intermediate dial equipment.

(2) Customers in the exchange area are reached on a dial basis from the nationwide network from a No. 4-type system either directly or via intermediate dial equipment.

As stated above, some 490 Independent company exchanges are connected to the dial network. Independent companies participating in the nationwide toll dialing system at the end of 1952 are listed below by states, and the number of exchanges owned by each company is shown. The list was prepared from available records, and in spite of careful checking there may be some omissions.

Some Independent local exchanges presently equipped with the essential features to participate in nationwide toll dialing have not been included in this report. These exchanges are located in areas where the necessary toll switching equipment at the major or intermediate switching points is not yet in service. An example of this situation is an Independent company community dial office (CDO) connected with a manual toll center. The CDO is not now reached on a dial basis from the network only because the toll center is not arranged for dial switching.

As the program progresses, a continuing number of No. 4-type systems will be placed in service at the CSP's, other switching systems will be installed at intermediate switching points, and an increasing number of ordinary toll centers will be converted to dial operation. In all probability a number of toll centers operated by Independent companies will utilize equipment developed for this purpose by the Independent manufacturers. The list of Bell and Independent exchanges connected to the network will grow accordingly.

Following is the list of Independent companies which were participating in the nationwide toll dialing system at the end of 1952, with the number of exchanges connected to the network shown in parentheses:

California

Delta Telephone & Telegraph Co. (3); Dos Palos Telephone Co., Inc. (1); Farmington Telephone Co. (1); Los Gatos Telephone Co. (2); Roseville Telephone Co. (1); Sanger Telephone Co. (1); San Joaquin Telephone Co. (1); West Coast Telephone Co. of California (1).

Florida

Florida Telephone Corp. (2); Inter-County Telephone Co. (2); Peninsular Telephone Co. (9).

Georgia

Georgia Continental Telephone Co. (1); Interstate Telephone Co. (1); Leslie-De Soto Telephone Co. (1); Milledgeville Telephone & Telegraph Co. (1); South Eastern Telephone Co. (1); Thomaston Telephone Co. (1); Trion Telephone Co. (1); Waverly Hall Telephone Co. (1).

Idaho

General Telephone Co. of the Northwest (1).

Illinois

Dixon Home Telephone Co. (2); General Telephone Co. of Illinois (14); Geneseo Telephone Co. (1); Harmon Telephone Co. (1); Illinois Allied Telephone Co. (6); Illinois Consolidated Telephone Co. (1); Illinois Telephone Co. (2); Madison Telephone Co. (1); Middle States Telephone Co. of Illinois (2); Mt. Pulaski Telephone and Electric Co. (2).

Indiana

Attica Telephone Co. (1); Citizens Independent Telephone Co. (1); Citizens Telephone Co. (6); Crown Point Telephone Co. (1); Eastern Indiana Telephone Co. (3); General Telephone Co. of Indiana (3); Indiana Telephone Co. (3); Knightstown Telephone Co. (2); Princeton Telephone Co. (1); Public Telephone Corp. (5); Richmond Home Telephone Co., Inc. (1); Southern Indiana Telephone Co. (2); Union Telephone Co. (1).

Iowa

Farmers Mutual Telephone Co. (1).

Kansas

Southwest Telephone Co. (1).

Louisiana

Breaux Bridge Telephone Co. (1); Cheneyville Telephone Co. (1); Oak Ridge Telephone Co. (1); Southwestern States Telephone Co. (1); Star Telephone Co. (1).

Maine

Lewiston, Greene & Monmouth Telephone Co. (1); Somerset Telephone Co. (1).

Michigan

Au Gres Telephone Co. (1); General Telephone Co. of Michigan (7); General Telephone Co. of Ohio (1).

Minnesota

Central Telephone Co. (3); Crow Wing Cooperative Rural Telephone Co. (1); Lerdal Telephone Co. (1); McGregor Telephone Co. (1); Minnesota Telephone Co. (2); Pelican Telephone Co. (1); Racine Telephone Co. (1); Watertown Township Rural Telephone Co. (1); Worthington Telephone Co. (1).

Missouri

Capital City Telephone Co. (1).

Montana

Treasure State Utilities Corp. (2).

Nebraska

Blair Telephone Co. (3); Gurley Telephone Co. (1); Lincoln Telephone & Telegraph Co. (21); Panhandle Telephone Co. (1).

New Jersey

Warwick Valley Telephone Co. (2).

New Mexico

General Telephone Co. of the Southwest (4); New Mexico Rural Telephone Cooperative (7).

New York

Chenango & Unadilla Telephone Corp. (12); Columbia & Rensselaer Telephone Corp. (3); Deposit Telephone Co., Inc. (3); General Telephone Co. of Upstate New York, Inc. (14); Highland Telephone Co. (3); Orange County Telephone Co. (1); Oswego County Independent Telephone Co. (2); Pattersonville Telephone Co. (1); State Telephone Co. (1); Tri-State Associated Telephone Corp. (1); Warwick Valley Telephone Co. (1).

North Carolina

Carolina Telephone & Telegraph Co. (41); Central Carolina Telephone Co. (1); Durham Telephone Co. (1); Guilford Telephone Co. (1); Lattimore Telephone Co. (1); Lee Telephone Co. (2); Morris Telephone Co. (2).

North Dakota

Abercrombie Telephone Co. (1); Northern States Power Co. (1).

Ohio

Ashtabula Telephone Co. (1); Bucyrus Telephone Co. (2); Campaign Telephone Co. (3); Chardon Telephone Co. (1); Chillicothe Telephone Co. (1); Citizens Telephone Co. (1); Columbia Telephone Co. (1); Dorset Telephone Co. (1); Doylestown Telephone Co. (1); Eastern Telephone Service Co. (4); Elyria Telephone Co. (1); General Telephone Co. of Ohio (19); Geneva Telephone Co. (1); Harrison Telephone Co. (1); Kenton Telephone Co. (1); Kingsville Telephone Co. (1); Lima Telephone and Telegraph Co. (8); Logan Home Telephone Co. (3); Lorain Telephone Co. (6); Northern Ohio Telephone Co. (27); Northwestern Telephone Co. (1); Ohio Central Telephone Corp. (3); Ohio Consolidated Telephone Co. (3); Ottawa Telephone Co. (1); Telephone Service Co. (1); Thompson Telephone Co. (2); Troy-Tipp Telephone Inc. (1); Warren Telephone Co. (3); Western Reserve Telephone Co. (4).

Pennsylvania

Bentleyville Telephone Co. (1); Bethel & Mt. Aetna Telephone & Telegraph Co. (1); Columbia Telephone Co. (2); Commonwealth Telephone Co. (7); Conestoga Telephone & Telegraph Co. (1); Coopersburg Telephone Co. (1); Denver & Ephrata Telephone &

(Please turn to page 36)

Recent Developments in

Public Utility Regulation

By FRANCIS X. WELCH, Telephony's Washington Editor

A BRIEF summary of background on the major legal problems of public utility regulation is almost a necessary prerequisite for the non-specialist in seeking to evaluate the more recent developments to be discussed this morning.

The legal concept of special regulation for public service industries, such as we have come to call public utilities, is fairly ancient. The special obligation of a common carrier of goods, for example, was found in the Justinian Code completed in 533 A.D. In British law, the great Lord Chief Justice Hale, over three centuries ago, laid down the distinction between business "charged with a public interest" and other forms of enterprise, not subject to special regulation.

And yet, despite this somewhat traditional if not classical background, the technique of public utility regulation, as it is practiced today throughout most of the United States, has developed into something quite different, quite unlike parallel development in public utility operations throughout the world—with the possible exception of the Dominion of Canada. Comparing utility regulation in this country and abroad, the impartial student of regulation is struck first of all by the fact that nowhere else in the world today are the public utility services so much under the control and operation of private ownership as in the United States. It might be a fair question to ask, in passing, whether regulation of public utilities as it has developed in the United States might have played its part in keeping our people satisfied with a continuation of public service under a system of private enterprise, but subject to regulatory control by the government.

Most lawyers are aware in a general way, at least, that this system of business regulation, which I have referred to as almost indigenous to the United States, has developed over the years, worked out by combination of court decisions, statutory law, and—in more recent years—economic and accounting techniques developed by our state and federal regulatory commissions. A good many lawyers of general experience are also familiar with the three great landmark U. S. Supreme Court decisions, which have marked off the three phases in the evolution of the law of public utility regulation.

First there was Munn *v.* Illinois, 94 US 113, decided in 1877, which upheld the constitutionality of an Illinois statute which singled out a particular form of business enterprise (in this case a grain elevator) for regulation as to the rates charged for service to the public. It was the Munn Case which ushered in what might be called the statutory or legislative phase of public utility regulation.

Soon thereafter, states attempted by statute to fix railroad fares at so much a mile, and gas rates at so much a thousand cubic feet. And it was one of these early passenger fare statutes, enacted in Nebraska, which led to the second great landmark case, Smyth *v.* Ames, 169 US 466, decided in 1898. This decision launched utility regulation into what might be called the judicial phase. Although, paradoxically, this very ruling upheld the Nebraska passenger fare statute involved in that case, at the same time it laid down such exacting standards by which to test the constitutional validity of rate regulation that it actually sounded the death knell of any further serious attempt to fix utility rates by statute. The court held in Smyth *v.* Ames that the utility was entitled to a fair return on the fair value of the plant investment. But it enumerated so many factors to be considered that regulation became a full-time job, beyond the competence of any legislature. So, as a result of this decision, state regulatory commissions with full rate authority were established, first in Wisconsin and New York in 1907, and in all but about a dozen states by 1915. Yet, the courts continued to exercise a close supervision over the orders of these regulatory commissions to see that the standards of reasonableness laid down in Smyth *v.* Ames were followed.

The third or administrative phase really began in 1933, with the Los Angeles decision, 289 US 287, PUR1933C 229, in which the U. S. Supreme Court began a retreat from this position of "back-seat driver"—so to speak—with respect to commission regulation. It said in that case that it would not sit as a board of revision over factual determinations by an expert regulatory body. This retreat culminated with the third landmark case in the field of regulatory law—Hope Natural Gas Co. decision in 1944, 320 US 591, 51 PUR NS 193. Here the court all but surrendered its constitutional veto of regulatory rate orders, and said that it would no longer concern itself with any formula or method as long as the end result permitted the utility to continue operations and attract sufficient capital to maintain adequate service.

It can be seen that this decision gave the regulatory commissions a considerable amount of latitude and brought us into what might be called the administrative phase of regulation. The Federal Power Commission, which was successful in the Hope Case, continued a policy of refusing to fix rates on any other basis except a return related to the original cost of utility property when first devoted to public service, minus the amount of accrued depreciation of such properties as measured by the depreciation reserve. This formula, which is known as the return on net investment formula, had been implemented by the very detailed accounting requirements known as the Uniform Classification of Accounts. Most of the state commissions have prescribed similar accounts for the various utilities subject to their jurisdic-

Address given before the Blue and Gray

Regional Meeting of the American Bar

Association on May 6 in Richmond, Va.

tions. And a majority of the state commissions followed the federal commission's example in basing rates on original cost as expressed through such property accounts.

One basic economic question, which has bedeviled utility rate regulation since its very beginning in the declining years of the 19th century, still continues to complicate the present-day picture of rate regulation. This persistent difficulty refuses to be downed, despite the hopeful opinion of one of the present High Court Justices that the Hope Case had finally "laid the ghost of Smyth *vs.* Ames." It is the economic factor of replacement cost which has been given renewed significance by reason of the inflation which followed the end of World War II. With the purchasing power of the dollar cut almost in half during the past decade, and with operating costs—salaries, materials and supplies, and taxes—rapidly increasing in proportion to revenues, a number of utility companies still maintain that a rigid adherence to original cost of their properties as a basis for rate fixing is not fair to the owners of the property, and that the regulatory commission should consider and give some weight to the current value of their properties in terms of the present-day debased dollar.

Despite this renewed pressure, which is still taking the form of attempted introduction of reproduction cost evidence in a number of public utility rate cases throughout the country, a sizable majority of the state commissions are now following the original cost-less-depreciation rate base pattern—or some closely allied variation of it, such as prudent investment or historical cost. Based on a personal survey of most recent rate cases through the end of 1952, this speaker has estimated that 31 states fell into this category: Alabama, California, Connecticut, Delaware, Florida, Idaho, Illinois, Indiana, Kentucky, Louisiana, Maine, possibly Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Nevada, New Mexico, New York, North Dakota, Oklahoma, Oregon, Rhode Island, South Dakota, Tennessee, Utah, Vermont, Washington, Wisconsin, and Wyoming. The regulatory practice in these 31 states was based in some instances, upon definite statutory requirements. In other instances it was founded on interpretation of what constitutes a "reasonable rate" under the state law. And in still other cases, it was based upon state court mandates.

Following the alternative practice, as of the end of 1952, in 15 states utility rate bases give some recognition to reproduction cost or some other variety of current cost factors. These were: Arizona, Arkansas, Colorado, Georgia, Kansas, Montana, Nebraska, New Hampshire, New Jersey, North Carolina, Ohio, Pennsylvania, South Carolina, Virginia, and West Virginia. In only one state, Ohio, does the law actually spell out a mandatory requirement for the exclusive use of a reproduction cost rate base.

So much for the end of 1952. Now it may be significant (and I think that it is) that three states within a period of three months, beginning in 1953, have switched from that first group into the second group. This was accomplished by three state supreme court decisions in Illinois, Maine, and Maryland directing their respective state commissions in each case to give some recognition to reproduction or current cost factors in fixing utility rates.

I might say, in passing, that all three of these cases involved operating system companies of the Bell System. The Illinois Supreme Court decision was handed down Jan. 22, 1953, reversing the Illinois Commerce Commission's refusal to grant a rate increase to the Illinois Bell Telephone Co. And a motion for rehearing was denied on Mar. 12, with an order clarifying the original opinion. The Maine Supreme Court decision reversed a similar decision involving an attempted rate increase by the New England Telephone & Telegraph Co., and was handed down on Feb. 22. The Maryland Court of Appeals upheld the Maryland commission by granting a modified rate increase to the Chesapeake & Potomac Telephone Co. on Jan. 23, although in this case the commission, itself, had interpreted its statute as allowing some recognition of the reproduction cost factor.

As an aftermath to these decisions, bills were introduced in the Maine and Maryland legislatures to amend statutes so as to compel adherence to the original cost standard. The Maryland measure failed to get action. My latest information on the Maine bill was that its chances were doubtful. A similar bill was defeated in the North Carolina Legislature this year. And still another bill in this category to rewrite the Ohio reproduction cost statute in favor of original cost, was inactive in Ohio legislative committees, according to my latest information.

As a result of the three 1953 decisions mentioned, we now have 28 states adhering to original cost and 18 providing for some recognition of current cost. It would probably be premature to see any definite trend in these three state decisions. But there is no doubt that the inflationary impact on utilities continues, despite the more recent softening in other prices.

All of this would seem to indicate that the so-called "ghost of Smyth v. Ames" was not laid to rest by the Hope Case and will probably continue to haunt public utility regulation for some years to come.

Somewhat allied to long-range controversy over the rate base, is the question of treatment of depreciation. The practice of the Federal Power Commission, and most of the so-called "original cost states," has been to deduct the accrued depreciation from the original cost of the utility plant. This deduction, to arrive at the net investment rate base, is measured by dollar amount of the depreciation reserve. In a few states, such as Wisconsin and until recently California, the utilities have followed the practice of not making any deduction for depreciation, but instead annuities are set up, based upon the estimated life of various units of property, and interest on the depreciation reserve is added annually at a fixed rate. This is called the sinking-fund method.

Aside from whether the so-called straight-line or sinking-fund method is used, the post-World War II inflationary era has given rise to agitation to have higher replacement cost recognized in the treatment of depreciation. So far, there has been more agitation than decision along this line. The argument for using replacement cost in allowing for retirement losses has been made in a number of rate cases. It was rejected by the Georgia

commission in the Southern Bell Telephone & Telegraph Co. Case (1952) 91 PUR NS 97, and by the Florida commission in a case involving the same company in the same year, 92 PUR NS 335. An important case involving The Peoples Gas Light Co., serving the Chicago area, in which a very determined case for recognition of replacement cost in the treatment of depreciation is now under advisement of the Illinois Commerce Commission, is being watched with interest in view of the recent decision of the Supreme court of that state in the Illinois Bell Telephone Co. Case, already mentioned.

Turning now to another phase of the public utility rate case, we have the so-called "cost of capital" as a measure of the allowable rate of re-

(Please turn to page 40)

REA Approves Five Telephone Loans Totaling $1,065,000

The Rural Electrification Administration approved five loans to telephone companies during the week of Apr. 20-24. Details of the loans follow:

Planters Rural Telephone Cooperative, Millen, Ga., $145,000, second loan to this borrower.

These loan funds will be used to cover increased construction costs involved since the first loan of $420,000 was approved in February, 1952.

The two REA loans will enable the borrower to provide modern telephone service to 1,197 subscribers in Screven and Effingham counties. Present plans call for six instead of five automatic central offices. Contracts have been let for the central office equipment for the offices in Screven County—Doublehead, Woodcliff, Hilltonia and Newington. The borrower is considering service without toll charges between each of these offices and Sylvania, nearby trading center and county seat. The two remaining central offices will be at Guyton and Marlowe. The completed system will consist of 441 miles of line.

* * *

Barnesville (Minn.) Rural Telephone Association, $517,000, to improve and expand rural telephone service in Clay County, Minn., and Richland County, N. D.

The loan includes $142,000 previously approved for the Abercrombie (N. D.) Telephone Co., which is being acquired by the Barnesville association. All of the facilities planned by the Abercrombie company under the earlier loan will be constructed by the association.

Much of the new loan is, in effect, a supplement to the earlier loan. The Abercrombie company was unable to make the necessary local arrangements to start using the REA loan funds; the Barnesville association has already made most of them, and can proceed rapidly into construction, the REA reported. Approval of the new loan was simultaneous with rescission of the loan to Abercrombie.

With these loan funds, the association will rehabilitate the Abercrombie properties, now serving 315 subscribers over 136 miles of line, and add new subscribers there as the Abercrombie company originally had planned. In addition, it will acquire the Mooreton (N. D.) Telephone Co., now providing dial service to 137 subscribers over 59 miles of line, and four common battery rural switcher lines served by the Barnesville municipal telephone system.

When construction provided for under this loan is completed, the system will have unattended dial exchanges at Barnesville, Minn., and Mooreton and Abercrombie, N. D., serving 661 subscribers of the association, of which 155 are now without telephones. Improved switching service will be provided to another 575 subscribers within the city of Barnesville and in rural areas, including 33 new subscribers not now receiving service.

The new system serving a total of 1,236 telephone users, will consist of 440 miles of line of which 38 miles will remain in use, 173 miles of new line will be constructed, and the 229 miles of existing line will be rehabilitated. This loan also covers increased costs since the first loan for some of these facilities was approved.

* * *

Lawton (Iowa) Cooperative Telephone Association, $193,000, second loan to this borrower.

These loan funds will be used to finance the construction of 28 miles of line not provided for in the first loan, and an increase in the proportion of private, semi-private or four-party lines. The funds will also cover increased construction costs involved since the first loan of $699,000 was approved in February, 1952.

The borrower is planning service without toll charge within the northern section of the system including the Lawton, Moville and Bronson exchange areas; and also within the southern section comprised of Hornick, Climbing Hill and Smithland areas. There will be a toll charge for calls between the two sections.

The expansion and improvement possible under both REA loans will bring modern telephone service to 1,752 rural subscribers over 474 miles of line in Woodbury and Monona counties.

* * *

Farmers Mutual Telephone Co., Madison, Minn., $36,000, third loan to this borrower.

These loan funds will be used to complete the construction authorized in the first two loans and provide for 33 miles of line not included in these loans.

The three REA loans will finance dial telephone service to 378 subscribers in Lac qui Parle County. Construction of the central office building at Cerro Gordo is practically complete and 274 subscribers are already connected. The cutover to dial service is expected shortly. Completed, the new system will consist of 218 miles of line.

* * *

Lincoln County Telephone System, Pioche, Nev., $174,000, second loan to this borrower.

As a result of this new loan approval, modern telephone service will be made available to 125 subscribers not provided for in the first loan. The new loan will also cover increased construction costs since the first loan of $242,000 was allocated in September, 1951.

Four central offices will be provided at Caliente, Pioche, Panaca and Alamo. This plan eliminates the proposed central office at Caselton since the site of a government-financed development of 100 homes has been changed from Caselton to Panaca. The Panaca exchange facilities will be enlarged to handle the increased load.

When all the improvements and expansion under both REA loans are complete, this borrower will be operating 185 miles of line serving 756 subscribers.

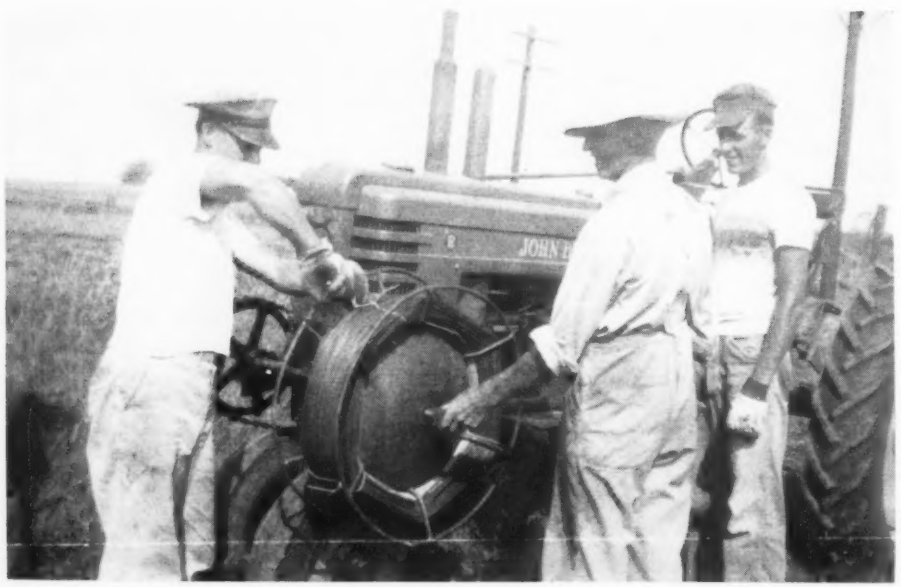
* * *

Also at the request of the borrowers, REA rescinded the following loans:

Apr. 21, Abercrombie (N. D.) Telephone Co., $142,000.

Apr. 23, Mt. Vernon Telephone Co., Brodhead, Ky., $266,000.

Farm tractors and attachments were used to construct poles lines for the new Alsen system, as shown in the photos above and below.



Devising a rapid way to string wire was not beyond the means of the farmers. Reels for paying out new wire and winding up old wire were easily made by adding an attachment to the tractor.

COMMUNITY INITIATIVE

Plus

FARMER INGENUITY

Built This System

By F. J. GILBRIDE
State Editor
Daily Argus Leader
Sioux Falls, S. D.

Citizens in Alsen, S. D., community and Small Company Committee of South Dakota Telephone Association join hands in bringing dial service to area.

IT COULD be said this story had its beginning back some 50 years ago with the final words being written in March of this year when over 100 members of the Alsen (S. D.) Community Telephone Co. attended an "open house" in Alsen.

However, the beginning in 1901 proved to be merely a prologue, and the "open house" the climax of a new story which dwells about the accomplishments of community initiative and farmer ingenuity.

The plot is concerned with the development of a community enterprise which stands by itself in a five-state area.

All stories must have a locale and there are probably many who have never heard of this community. It is located eight miles south and one mile west of Beresford, S. D., in the southeast corner of the state.

Actually, Alsen has no drawing power as a trade center. Its trade is funneled to Alcester, Beresford, Centerville, Elk Point and Vermillion. Beresford, due to its location, probably

draws over half of the Alsen farm trade.

Alsen consists principally of a general store, blacksmith shop, electric shop, gasoline station and a town hall and a population of about 25.

One cannot think of the characters without drawing in the plot which concerns itself with the establishment of a modern telephone system which carries a value of $200,000 and dial telepones in 327 homes.

As far as it can be learned, it is the largest community project of its type in South Dakota, Iowa, Minnesota, Nebraska and North Dakota.

Telephone service was first furnished to this community by the Alsen, Beresford & Emmet Telephone Co., a stock organization formed by farmers in 1901.

It was a community project, owned by the farmers, for the purpose of providing telephone service at a reasonable rate but no provision was made for depreciation.

When rural electricity made its advent into this area it brought the realization that changes in the telephone set-up were required if modern telephone service was to remain a part of life. The telephone lines would have to be metalicized to eliminate the electric hum from the grounded lines, the basic design of the system and much of the plant, now 50 years old, needed replacement.

The board of directors was of the opinion there were not enough active stockholders remaining to successfully rebuild the service and the Small Company Committee of the South Dakota Telephone Association was asked to assist, in hopes of finding an answer to the problem of the community.

Customer criticism was growing and the directors fully realized action of some sort was needed at once.

The state telephone association committee agreed to furnish technical and engineering assistance to the Alsen community if a decision was made to bring more modern telephone service to the people.

First meeting between the Alsen people and the association committee was held on Apr. 23, 1951, and at this meeting Dan Bylander, Charles Murphy, Maurice Erickson, Isaac Lykken, Everett Peterson, H. P. Strom and Floyd Larson were named as a committee to probe the possibilities of improving the telephone service.

This committee later became charter members and the initial officers of the new Alsen Community Telephone Co.

It was June 4, 1951 when the committee reported back to the group and

Lessons given on outside plant construction by representatives of the South Dakota association Small Company Committee were well-learned by farmers, like the one shown above.

submitted the following recommendations:

(1) Develop a new telephone company whereby every user would be an equal owner.

(2) Install a modern dial system and new lines to every farm in the community desiring service.

(3) Negotiate with the old Alsen, Beresford & Emmett company, which had voted to dissolve, for any property or material which might prove of use to a new company.

(4) Finance the project, requiring approximately $65,000 for materials alone, by the sale of common and preferred stock to patrons within the community.

(5) Furnish necessary labor and manpower by each owner of a share of common stock contributing the labor or the equivalent, to construct the line.

By mid-October there was assurance the efforts of the community would be carried to a successful end and an engineer, representing the South Dakota association committee, started to engineer the lines.

In December, 1951, the Alsen Community Telephone Co. became an actual concern and materials were ordered. The original order consisted of the following:

Ten carloads or 2,050 poles; 740 cross-arms, 500 miles (85,000 pounds) of wire; 600 anchors, 17,000 feet guy strand; 3,900 wood pole brackets; 60,000 feet insulated pair drop wire; 11,000 feet of underground cable; automatic dial switchboard with ringer and power equipment and 350 dial telephones.

Materials started to arrive in the spring of 1952 and continued all summer. On Aug. 10 sufficient materials had arrived to start construction. A majority of the farmers had completed harvest which allowed them to work a few weeks on the line before turning to the fall farm work.

James Anglin, Viborg, a Northwestern Bell telephone foreman, was loaned to the company to supervise the construction. Mr. Anglin was reared in Centerville and Vermillion and knew many of the people personally.

In engineering the project, the community was divided into 22 sections with a team captain being appointed from each section.

Mr. Anglin held a two-day school of instruction with these team captains and they in turn, passed the instructions along to the members of their teams.

Each team captain was given engineered plans, tools were loaned by the Bell company and construction was actually underway.

The construction task was no small endeavor. It consisted of building 150 miles of new pole line and wire, laying two miles of underground cable, installing 327 dial telephones, building a new building to house the automatic switchboard, and removing 165 miles of old pole line and wire.

A power digger was contracted for to dig the cable ditch and an experienced cable splicer was employed to splice the cable. An expert installed the dial switchboard in the building erected by one of the farmer members. Farmers, employing their own ingenuity, completed the rest of the $200,000 dial system which was cut into service Jan. 1.

V V

"A free market economy always leaves open the door of opportunity to the man with a new idea, a new product or a new method," says the Chamber of Commerce of the United States.

THE PLANT MAN'S Notebook

by Ray Blain, Technical Editor

WE MENTIONED on this page in the Mar. 21 issue that we had not heard of a single case in which background music has been used in a plant room.

We now have a letter from J. A. McKinzie, general plant superintendent of the Lincoln (Neb.) Telephone & Telegraph Co., advising us that his company has had this type of music in its general repair shop, switchrooms, garage and men's club rooms for the past several years. He states that to say it is a good idea is rather difficult because there are times when it becomes rather monotonous.

Robert Neikirk of REA's technical standards division, Washington, D. C., also advises us that he has heard this background music in some of the garages of Bell companies.

In our humble opinion, background music, if continuous, will in time become wearisome. Silent periods must be observed periodically if the music is to be fully appreciated.

• • •

A soft lightweight, rubber-like boot without lining, which is waterproof and provides good protection against cold is now available. A fine honeycombing of tiny air cells of the material used provides the insulating quality.

• • •

Mention was made on this page recently of sand and snow static and we inquired as to whether or not it caused trouble on open wire lines.

We now have a letter from Ralph W. Winsted, owner of the Winsted Telephone Co., Ulysses, Kan., in which he states in part as follows:

"My experience, and I believe I have had considerable here in this area, is that static will build up on lines, both grounded and metallic circuits, and cause interference to a point where it is almost impossible to use the line.

"In most cases, static build-up on a grounded line will not cause the interference that it will on a metallic circuit. The static buildup on a grounded circuit discharges to ground and thus dissipates itself with less arc noise in the receiver than on a metallic line. On a metallic line, the static buildup appears to have no place to go to ground, but flows into the nearest instrument to cause noise in the receiver. Why lightning arrestors will not control static charges, I will never know.

"We have found that the best means of controlling static is to make use of a repeating coil, with a center tap to ground, to act as a drain."

• • •

We have just received a letter from John Van Liew, equipment engineer in the division plant department of Virginia Telephone & Telegraph Co., Charlottesville, Va., in which he refers to the operation of a fire siren in an unattended exchange.

One method, used at Kenbridge, Va., carries the following directory listing: Fire Alarm 2001; if no answer dial 2771; if no answer dial 2736. These are the regular numbers of three subscribers who have agreed to relay fire calls. The one that is most likely to be at home is listed first in the directory.

When a call for the fire department is received by any one of these stations the message is taken and the calling party is asked to hang up. The person relaying the alarm replaces his own handset, operates a key that connects his line with a direct line to the fire station, and dials the reverting call number to ring back on his own line which turns in the alarm. The person doing the alarm-relaying then reports the fire location to the first fireman who answers the common battery telephone at the fire station.

When the alarm has been completed, the key at the subscriber's station must be restored to normal to prevent false alarms on subsequent calls on this subscriber's line.

It is understood that this method of intercepting and relaying fire calls eliminated many false alarms which were encountered when a dial telephone was connected directly to the siren switch train.

At Crewe, Va., another method is used. In this case, the local Y.M.C.A. is manned 24 hours per day and they take all fire calls over a special (separate from their own line) dial telephone. They then ring on a magneto telephone that connects directly to the fire station and starts the siren. The first fireman to reach the station answers the magneto telephone and obtains information on the location of the fire from the Y.M.C.A. attendant.

• • •

It has been estimated that approximately 120 million Americans heard and watched General Eisenhower's inauguration as the 34th President of the United States. The Bell System facilities and the television and radio networks made possible this on-the-spot presentation of history. Even the loudspeaking equipment at the Capitol and along the line of the inaugural parade made use of telephone company circuits.

• • •

The green fleet of trucks and cars of all the Bell telephone companies adds up to the largest private automobile fleet in the world—60,000 vehicles. This represents about 125 million dollars worth of rolling stock that will travel a total of about 500 million miles this year. Approximately $100,000 worth of green paint will also be used this year for retouching and painting to keep them green. No wonder Bell trucks always have a neat, clean look!

• • •

An inexpensive sunglass lens, claimed to be completely effective without falsifying colors seen through it, has recently been placed on the market.

• • •

It has been said that in free America, a street sweeper can become a professor—if he's willing to make the financial sacrifice.

Need of Adequate Return is Stressed at Illinois Convention

By R. C. RENO

"THE MOST important problem facing the telephone industry today is keeping a balance between service, operating expense and revenues under inflationary and constantly changing operating conditions," Burton W. Saunders, president of the Illinois Telephone Association, declared in his address opening the association's convention in Peoria, held on Apr. 15 and 16.

Mr. Saunders is also president of the General Telephone Co. of Illinois.

The industry's effort to make improved telephone service available to the greatest number of people has resulted in making it an economic and social necessity. While, by and large, telephone companies have made much progress in improving and expanding their service, "the opportunities we now recognize for serving the public better should prevail in our thoughts and act as motivating forces toward improving our techniques in the interest of doing the best possible job," Mr. Saunders said. He continued:

"This job requires planning and recognition on the part of telephone executives and all employes, and the regulatory commissions, that financial stability for the industry is a matter of constant necessity. Rates that are charged for our services when labor and material prices are increasing must be in step at all times, with a minimum of lag. The job ahead in our industry cannot be done to the greatest benefit of the public unless the industry is healthy in all respects."

Speaking of bettering the financial and economic status of small telephone companies, which he termed as one of the most important industry problems, Mr. Saunders stated:

"The demand for a more complete and better small exchange telephone service reflects the change which has come about in the ideas and desires of the people. The position of small communities with respect to the nation as a whole has changed greatly through the years and particularly in the last 10 years. Our fellow citizens of the small communities have been inspired to take a more active interest in current affairs of national importance than it was possible for them to take . . . a few years ago. . . .

"In the early days, even the small systems that employed switchboards and had a toll outlet were practically isolated because the communications requirements of the telephone users were primarily for local service. This condition has changed greatly. . . . Circumstances, both economic and social, have made telephone service in our smaller communities more desirable than ever before."

Pointing out that many small companies have been unable to keep up with the great demand for better and expanded service, Mr. Saunders stated:

"Some of the small companies . . . are individually owned, and the owners, who had invested their savings or who had borrowed money to buy them when the plants were new, simply had taken very modest livings from them at the expense of their physical plants with the result that the investments had been dissipated. I think it should be said that these owners subsidized the telephone using public to varying degrees. Conditions such as these should be eliminated in the small telephone exchange operation of the future. . . .

"The organizations, corporations, partnerships and individuals who will operate the small telephone exchanges of the future must, if they are to satisfy the reasonable desires of the public, be equipped to maintain a uniformly high grade of service as their exchanges grow in size. They must maintain their outside plant in such a condition that their fault experience will not be excessive, and of course they must be sound financially so that a good credit rating may be established and used by them to attract money for investment when it is needed."

Ben B. Boynton, general counsel of the Illinois association, warned that in order to protect its territory from encroachment by newly formed REA cooperatives, as well as other companies, every company should have clearly defined exchange territorial boundary maps filed with the state regulatory commission.

Then he pointed out that each telephone company, in order to adequately serve its territory, must have financial stability and good management which will see that all departments of the business are functioning properly to meet not only today's needs but also tomorrow's requirements. Mr. Boynton stressed the importance of adequate earnings if a telephone company is to secure new capital needed for plant expansion and rehabilitation.

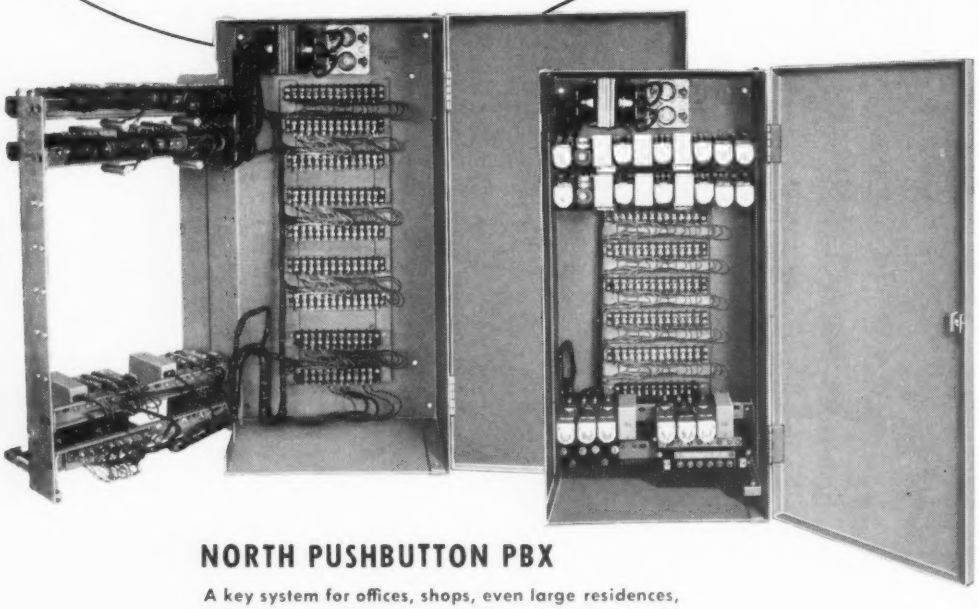
"A telephone company is not only failing in its duties to its investors but also to the public it serves if it does not see that it has adequate earnings," Mr. Boynton declared.

In his annual report to the convention, Secretary J. G. Hardy reviewed the activities of the association and its committees during the past year. He reported that a general small company committee had been appointed to give aid and assistance to the smaller companies in the state. Under the direction of the general committee, five area sub-committees have been formed to

(Please turn to page 24)

North Pushbutton Key and Lamp Box.

Up-



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A key system for offices, shops, even large residences, where the maximum needs will not exceed 6 trunks and 20 stations. Trunk or loop units easily added to initial service. Provides buzzer and lamp signalling. Can be connected to either automatic or manual common battery type central exchanges.

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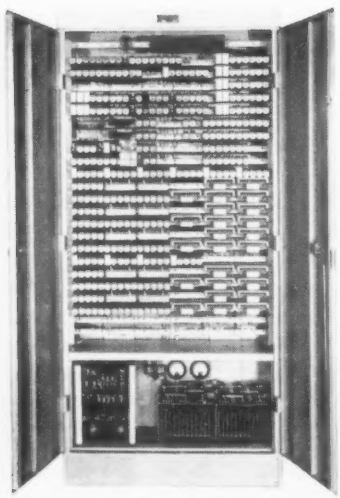
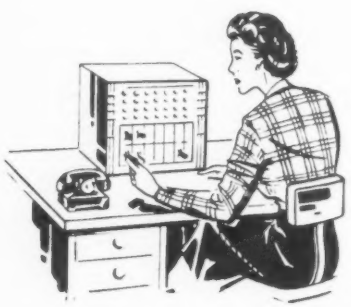
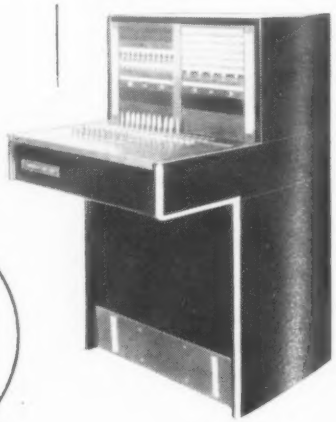
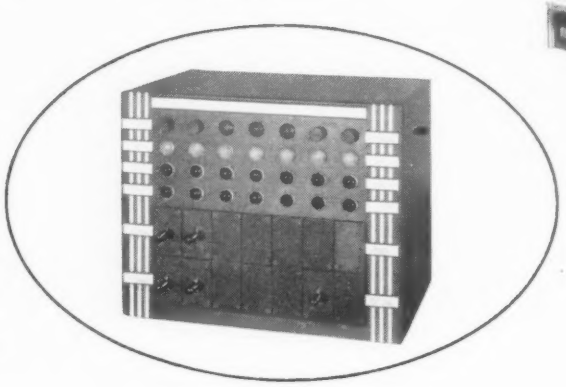




NORTH ATTENDED PABX

Console or full multiple types.





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Ideal wherever it is desirable to have a part time attendant intercept and extend incoming calls and to provide local information. Capacity thirty lines. Automatic All - Relay equipment occupies minimum floor-space. Cordless turret cabinet requires less desk space than a typewriter, or may be placed on desk-side brackets. Connects to any type of central office.

"Internal Revenue"

..from Commercial and Industrial trunks

Within the walls of industrial and commercial plants served by telephone companies everywhere are many opportunities to "up" the earning power of these worthwhile accounts.

Companies grow just as communities do. Service that is adequate today may leave something to be desired tomorrow in the way of communications within the plant. This internal need spells additional revenue for companies taking the pains to show such subscribers the many benefits from a complete PBX system based upon modern automatic equipment.

To assure yourself the greatest ratio of take-to-bank earnings, go after more PBX business now. Be sure you do it with the best, low-maintenance cost equipment. Remember that you can offer the best commercial service equipment, from pushbuttons for two up to fully automatic switching of a thousand lines . . .

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THE NORTH ELECTRIC MANUFACTURING COMPANY

Originators of ***ALL RELAY*** *Systems of Automatic Switching*

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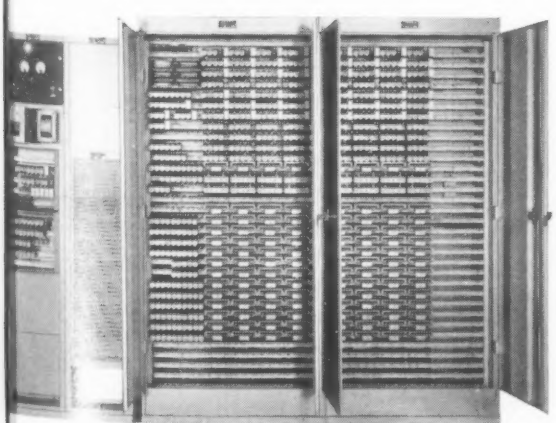
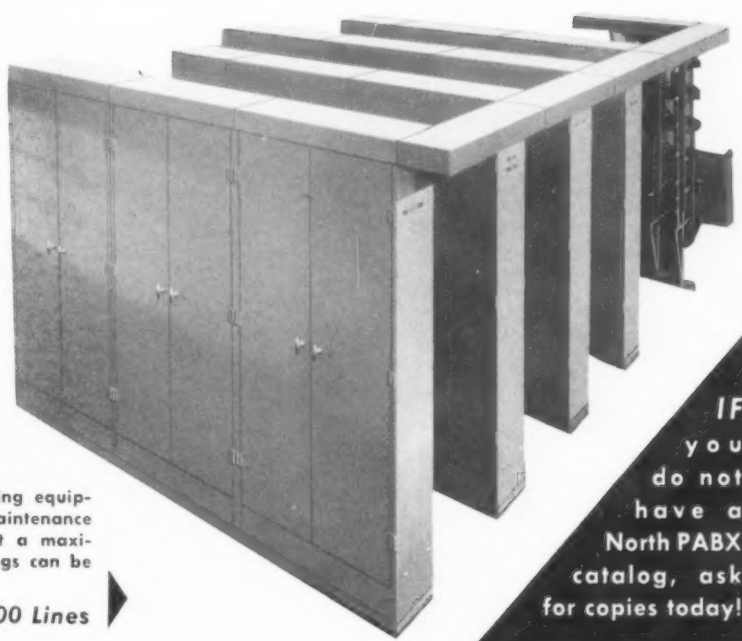


NORTH FULL-MULTIPLE PABX

Where traffic requires operator attendance, and expansion of the system is anticipated, North Full-Multiple equipment should be used. Available in capacities from 30 to 1,000 lines. North Automatic All-Relay switching equipment requires so little maintenance and servicing attention that a maximum ratio of profit to billings can be expected.

30 to 1,000 Lines



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work with the smaller companies in the respective sections of the state. These committees have made a survey of all small companies in order to select those which are in need of assistance.

The association accounting committee has been working with the Illinois Commerce Commission in promulgating a uniform system of accounts for class A and B telephone companies, Mr. Hardy reported.

The commercial committee has also conferred with the Illinois Commerce Commission in connection with its general order providing for the filing of exchange area boundary maps and in revising the commission's general order pertaining to credits, collection and handling of customers' deposits.

The major work of the plant committee has been directing clinics at the association's five district meetings.

The association's traffic committee during the past year held 26 toll center—tributary meetings which, Mr. Hardy said, have afforded excellent means for toll center and tributary personnel to become better acquainted and to work out difficulties in handling toll traffic.

"Private business is being jeopardized through competition of large tax-free cooperatives and other non-taxed business groups," Joseph F. Leopold, Dallas, Tex., National Tax Equality Association, declared in an address urging private business to demand that the loopholes in the federal tax laws be closed so that non-taxed organizations would pay their share of taxes.

Mr. Leopold stated that these groups do around a 20 billion dollar business annually, and that some of them have annual business of 100 million dollars or more. He estimated that there were 41,000 income tax free businesses in the United States, and that if they were taxed, from one and a half to two billion tax dollars could be added annually to the federal government's income.

In discussing "recent regulatory developments" Clarence Ross, Chicago, attorney for the Middle States Telephone Co. of Illinois and various utility companies, pointed out that there is a growing trend on the part of regulatory commissions and courts toward giving due consideration to reproduction cost of property in establishing utility rate bases.

He discussed various decisions in which courts have directed regulatory commissions, which had considered rate increases upon original cost rate bases, to give consideration to reproduction cost.

In view of the increasing trend of courts to question the validity of the

Officers of the Illinois association. Left to right: R. B. STILL, Bloomington, treasurer; R. J. ALTER, Galesburg, president; GORDON ALLER, Chicago, vice president, and J. G. HARDY, secretary.

The "Four Rauh's" of the Metamora (Ill.) Telephone Co. photographed at the Illinois convention are, left to right: R. J. RAUH JR., F. J. RAUH, G. E. RAUH, and R. W. RAUH.

In this group photographed at the Illinois convention are: D. W. McCONIGA, Murphysboro; W. T. LUCK, Springfield; R. J. ALTER, Galesburg, and M. A. KUGLER, Okawville.

original cost theory as an exclusive rate base, Mr. Ross urged all telephone companies to make complete records as to reproduction cost of their plants as a part of their rate increase petitions.

The Illinois Supreme Court's decision directing the Illinois Commerce Commission to rehear the rate increase of the Illinois Bell Telephone Co., in which the court held that the commission erred in failing to take into account "current economic conditions, present price levels, and reproduction costs" in denying Illinois Bell a rate increase, was discussed by George R. Perrine, chairman of the Illinois commission. The denial of Illinois Bell's rate increase was made by the commission holding office prior to the present commission, which Mr. Perrine heads.

The present commission, on the day prior to Chairman Perrine's appearance at the Illinois convention, entered an order granting Illinois Bell around 70 per cent of the original rate increase requested by Illinois Bell on Jan. 12, 1951. In granting the Apr. 15 increase, the Illinois commission gave considerable weight to the reproduction cost of Illinois Bell's property.

Discussing the commission's decision, Chairman Perrine stated:

"In this state the average rate of return has been more or less consistently established at 5.2 per cent. After studying similar properties in the different states, I have come to one inescapable conclusion—that the 5.2 per cent return . . . is lower by approximately 1 per cent than the average existing in the other states.

"We now arrive at the inevitable question: What governs rate of return? Invested capital? Yes, to a degree. We should remember that the actual invested capital must have a rate of return consistent with interest requirements plus adequate reserves for surplus and dividends. We must also take into consideration the question of *valuation*. . . .

"The importance of valuation . . . is emphasized because of the wide acceptance of the principle that public utilities are entitled under the law to charge rates for their services that will yield a reasonable return upon the value of the property devoted to and used in the service of the public, after reasonable expenses of operation, depreciation, taxes, and reserves, have been met. The right of a utility to a reasonable return upon the value of the property used in the public service is based upon the Fifth and Fourteenth Amendments to the United States Constitution, which in essence provide that neither the federal nor the state governments may deprive any person of property without due process of law.

"A long line of legal precedent has established this beyond question. The Illinois Supreme Court in the recent Illinois Bell case says: 'It is evident that in the exercise of its sound discretion the commission, in the fixing of reasonable rates as required of it by law, must necessarily consider, among other things, the factor of a reasonable return on the capital placed in the utility by the investors. In the final analysis, the rates fixed by the commission (in fixing prices as low as possible for the general public purchasing the services) should be sufficient to provide for operating expenses, depreciation, reserves that are necessary in good business judgment and operations, and a reasonable return to the investor on the basis of the fair value of the utility property.' . . .

"This line of reasoning by the Supreme Court of Illinois goes back as far as *Smith* v. *Ames* (169 U.S. p. 466) decided in 1898. In that case the rule of fair return on a fair value was well-established. It seems to be the controlling standard even today in determination of reasonableness of rates, and it is apparent that valuations of utility property are necessary in order to apply this rule. In actual practice, however, current valuations of a utility's property are not kept by the commission. To be sure, each utility files with the commission yearly its annual report in form and style prescribed by the commission. But such reports are not sufficient in context upon which to base a rate. . . . It would be a great aid to the commission, and probably to the utility also, if the commission had handy at all times current valuation studies of each utility under its jurisdiction. Then when a rate case was filed the commission and the utility could expedite the hearings and come to a much earlier conclusion."

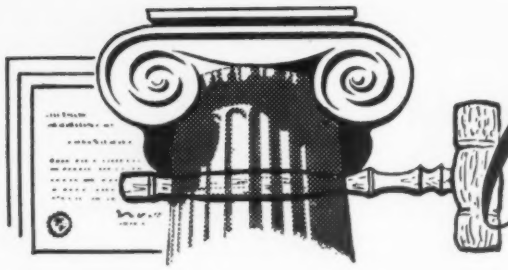
Discussing the long drawn-out rate case procedure which has worked a hardship on utilities, Chairman Perrine stated:

"It would seem to me that the commission should endeavor to promulgate a new general order that would expedite rate cases so that if the company is suffering because of an inadequate rate of return, it would not have to wait over long periods of time to have this matter adjusted. And, on

(Please turn to page 38)

Among the delegation from Mattoon attending the Illinois convention were A. W. WILSON (left forefront) and HELEN CANNON.

Four Illinois operators photographed while waiting for the convention traffic conference to open.



Courts and Commissions

Illinois Bell Asks Rehearing Of Recent Rate Raise Order

Illinois Bell Telephone Co. asked the Illinois Commerce Commission for a rehearing on an order of Apr. 15 increasing the company's rates (TELEPHONY, Apr. 25, p. 62). The order set new rates below the figure asked by the company when it first asked for an adjustment on Jan. 12, 1951.

On the basis of the original request, annual revenues would have been raised approximately $22,800,000, but the commission's order will provide an estimated $16,518,000.

The commission's decision granting the $16,518,000 increase followed a decision by the Illinois Supreme Court ordering the commission to reconsider the Illinois Bell case, after a rate increase had been denied by the Illinois commission, prior to its reorganization under the present administration.

V V

Eastern Legislation Affects Commission Costs, Rate Raises

In Connecticut on Apr. 22, the legislature gave final passage and sent to the governor for signature, a bill to assess public utility companies 45 per cent of the cost of operating the Connecticut Public Utilities Commission.

On the same date, New Hampshire's senate passed and sent to the house, a bill providing that when a public utility puts a rate increase into effect under bond during a rate proceeding before the New Hampshire Public Utilities Commission, the amount of the increase may not exceed 12½ per cent of existing rates. No limit in such instances is specified by present law.

V V

Commission Authorizes Sale Of Indiana Company

The Indiana Public Service Commission, on Apr. 30 decided that if a buyer can be found for the Orange Mutual Telephone Co., the exchange may be sold.

Rural subscribers served by the company won their appeal to have the commission declare the area covered by Orange Mutual "open territory" for new ownership on the ground that service is inadequate.

Attorneys for Max E. Hosea, Indianapolis, operator of the company for an estate, offered no opposition.

Commission officials stressed that a year-old commission order that equipment be improved had not been carried out.

It was not disclosed what other telephone company might take over the property.

V V

New Jersey High Court to Hear Bell Rate Plea Begun in 1950

The New Jersey supreme court set May 4 for hearing the New Jersey Bell Telephone Co.'s appeal for a $9,800,000 rate increase that was denied by the New Jersey Public Utilities Commission in 1951 (TELEPHONY, Aug. 25, 1951, p. 28; Nov. 1, 1952, p. 28).

The company seeks to raise the rate on local paystation calls from five to 10 cents, among other rate increases.

The company contends that unless it receives the rate raise, for which it petitioned in April, 1950, its service improvement program will be jeopardized. Salary increases that have been granted employes since 1950 also are cited in defense of the increase.

In rejecting the application, the commission said the company's return on its investment was not insufficient and that the proposed rates were unjust and unreasonable.

V V

Massachusetts Law Limits Composition of Commission

Governor Herter on Apr. 28 signed into Massachusetts law a bill providing that no more than three of the five members of the Massachusetts Department of Public Utilities may be of the same political party.

The Massachusetts commission is now 4 to 1 Democratic, with Chairman David M. Brackman being the only Republican. Under the new law, the next appointment will have to go to a Republican.

V V

To Lengthen Commission Term

A bill extending from two to four years the terms of members of the South Carolina Public Service Commission was given final passage on Apr. 24 by the state legislature and sent to the governor for signature.

V V

S. C. Co-op Service Certificate, Purchase Approved

The South Carolina Public Service Commission has granted the Farmers Telephone Cooperative, Inc., Kingstree, a certificate of public convenience and necessity to serve areas in Florence, Williamsburg and Clarendon counties (TELEPHONY, Apr. 18, p. 27).

Another commission order authorized South Carolina Continental Telephone Co., Sumter, to sell to the Farmers cooperative part of its rural lines at Summerton, Manning, Olanta, Lake City and Kingstree exchanges, and to discontinue service to the subscribers served by the lines to be sold.

V V

Minnesota Commission Approves Four Sales

The following four sales were approved by the Minnesota Railroad & Warehouse Commission:

Apr. 20: Franklin Local & Rural Telephone Co. sold by Robert G., Howard C. A., Helen G., and Pauline G. Williamson to S. H. Larson. Sedan Telephone Co. sold to K. M. Peterson.

Apr. 27: Alberta Telephone Co. sold to Benton Cooperative Telephone Co. Finlayson Telephone Co. sold to P. T. Peterson.

V V

Southern Bell Gets $1,648,056 Yearly Rate Raise

The North Carolina Utilities Commission on Apr. 21 granted Southern Bell Telephone & Telegraph Co. permission to increase its rates in North Carolina by $1,648,056 a year. The company had asked for an increase approximating $3,426,000, contending it needed the additional revenue to bring a fair rate of return on its next investment and to meet increased operating costs and an expanded construction program (TELEPHONY, Oct. 4, p. 27).

The rate raise was Southern Bell's sixth since 1946, and the commission's

(Please turn to page 30)

helps give Monophones that "*FACE-TO-FACE*" Sound

People who use our Type 40 Monophone say its transmission sounds like *face-to-face conversation!* There are many reasons for this, but perhaps the most important is the purity and hardness of the carbon granules. We take great pains to make these granules as pure as diamonds.

For example, the man you see at the left is taking readings from one of a whole battery of instruments which record and control precisely the temperature during a key step in the processing of transmitter carbon. This processing begins when we select the finest hard coal. It continues through careful grinding, screening, washing, drying. It ends only when we make sure of the exact resistance of each batch, and test its performance in a telephone transmitter.

Telephone men the world over like Monophones for their natural transmission and extraordinarily trouble-free service. So do subscribers—a fact which makes many new friends for you. Remember, too: Type 40 Monophones are comparatively low in price. Order them today!

AUTOMATIC ELECTRIC

Originators and Developers of the Strowger Step-by-Step "Director" for Register-Sender-Translator Operation . . . Machine Switching Automatic Dial Systems
Makers of Telephone, Signaling and Communication Apparatus . . . Electrical Engineers, Designers and Consultants

Distributors in U. S. and Possessions: Automatic Electric Sales Corporation
Export Distributors: International Automatic Electric Corporation
1033 West Van Buren Street, Chicago 7, U. S. A.

order said "the extent to which telephone rates have increased in North Carolina since 1946 is a matter of genuine concern to the commission." It pointed out further that Southern Bell's increases during the period have totaled $7,146,000.

The company contended it needed a 7½ per cent rate of return, but the commission, in granting the increase of $1,648,056, said this is sufficient to yield a return of 6 per cent based on the company's net investment of $68,599,569.

V V

Maine Senate Approves Flexible Rate-Setting Policy

Maine's Senate approved on Apr. 28 a revised bill to allow "just and reasonable" rates for public utilities without tying the Maine Public Utilities Commission's hands.

The bill would delete from the present state law a requirement that "fair value" of property be used in computing a rate base. It was this provision that the Maine Supreme Court invoked in ruling that the commission erred when it denied a rate increase to the New England Telephone & Telegraph Co. (TELEPHONY, Feb. 28, p. 36).

The proposed new legislation, which has not been acted upon by the Maine House of Representatives, would direct the commission to "fix a reasonable value" giving "due consideration to the evidence of the cost of the property, when first devoted to public use, prudent acquisition cost . . . current value thereof, less depreciation . . ."

V V

Charters Granted Companies In South Carolina, Kansas

A charter has been granted by O. Frank Thornton, South Carolina secretary of state, to Home Telephone Co., Inc., Moncks Corner, to own and operate a telephone business in Moncks Corner and adjacent territory. The company plans to issue $70,000 of capital stock. Its president is S. S. Helmly.

* * *

Carry Creek Telephone Co., with headquarters at Chapman, Kan., received a non-profit state charter on Apr. 29. The office of the secretary of state listed Levine Janke as resident agent.

V V

Paystation Rates Raised in D. C.

The District of Columbia Public Utilities Commission approved on Apr. 29 an increase in The Chesapeake & Potomac Telephone Co. of Washington, D. C. paystation rates from five to 10 cents (TELEPHONY, Nov. 15, p. 40).

V V

General of Kentucky Sells Bonds and Common Stock

General Telephone Co. of Kentucky, a subsidiary operating company within the General Telephone System, with headquarters at Lexington, Ky., announced on Apr. 30, through its president, H. J. Huether, Jr., that it had placed privately one million dollars worth of 3.95 per cent first mortgage bonds with an insurance company, and had issued and sold $1,046,000 of its common stock to General Telephone Corp.

The funds realized from the new bonds and the sale to General Telephone Corp. of additional common stock, will enable the company to retire its bank loans and reduce its notes to the parent company.

V V

Correct Telephone Usage Taught in Ohio School

As a wire recording tape snaked its way from spool to spool, a high-pitched, raucous voice filled the classroom: "Now see here, you windbag, you've had the line for 20 minutes!"

This happened during the first of a recorded series of skits on "don'ts" by a committee of youngsters reporting on telephone courtesy as part of an extensive program of telephone study at Lorain Andrews Junior High School in Massillon, O.

Under direction of their teacher, Mrs. Lyle Burdette, eighth grade English class students were divided into working committees which studied the telephone, its development, place in the community and correct usage, and the life of Alexander Graham Bell.

In volunteering all possible assistance, Barry Stephens, Massillon commercial manager for The Ohio Bell Telephone Co., organized student tours of the company's local offices and the toll and other switchboards in nearby Canton.

Each committee studied its phase of the program and reported back to the remainder of the class. Some groups made drawings; others conducted round-table discussions, and still others sponsored Bell System movies that were loaned for the purpose.

The teaching technique used is called the "case" or "unit" method employed for a long time by Massachusetts schools, which are rated alert by the state department of education.

The children learn to work in groups they learn the practicalities of everyday things that surround them and, through field trips and by the use of movies, slides and models, learn by observation.

Their reports read like cigarette testimonials . . . "I never knew what went on when I picked up the receiver and dialed a number." . . . "I think this new way of learning about telephone is fun; besides that, I learned to take responsibility and exercise self-control." . . . "I hope we have more units like this one."

V V

Approve Sale of Exchange In Nebraska

The Nebraska Railway Commission has granted permission to the Citizens Telephone Corp., Malmo, to sell its Elgin exchange to the Northeastern Telephone Co., Blair.

The Northeastern company was also granted permission to issue $28,000 of 4 per cent bonds, $20,000 of common stock and $9,137 in notes.

V V

MIT Offers Summer Course in Transistors, Applications

To bring industrial engineers current information in the rapidly expanding field of transistors, the Massachusetts Institute of Technology (MIT) will offer a special summer program in transistors and their applications, from July 20 to 31 during the 1953 summer session.

The aim of the program, announced by Dr. Ernest H. Huntress, director of the MIT summer session, will be to define those areas in which the transistor may have immediate application and to make some prediction of its future.

Liberalism

"Liberalism implies freedom and individualism," writes Bob Munger in the *American Student*, official publication of Students for America. ". . . true liberalism stresses the dignity of the individual rather than the omnipotence of the state."

Let us keep that in mind next time we hear the term "liberalism" applied, as it usually is, to some plan for giving government more and more power over the individual citizen, at the expense of our rights, responsibilities, and freedoms.

The true liberal philosophy holds that government is the servant of the people, not the master.

Approximately one-fourth of the MIT summer program will be devoted to a development of the theory of the operation of transistors, starting from familiar physical principles.

The later discussion of applications will cover amplifiers and oscillators for various frequency ranges as well as the more unconventional non-linear circuits useful in pulse and computer service. The very real difficulties of drift with time and with temperature change, the problems associated with impedance matching, and the tuning troubles in bilateral active circuits will be given extensive discussion.

A portion of the program will be devoted to laboratory experiments designed to give a feeling for the nature of various types of transistors as circuit elements. Attention will be focussed throughout on the ultimate possibilities of the transistor for the solution of engineering problems.

Under the general supervision of J. Earl Thomas Jr., assistant professor of electrical engineering, the teaching and research staff of the Massachusetts Institute of Technology will be aided in the presentation by experts from several of the nation's leading industrial laboratories.

Professor Thomas says in commenting on the summer program, "As a versatile amplifying device, the transistor is capable of taking over many functions now assigned to the vacuum tube."

He continues, "Moreover, it can perform these tasks with unheard-of economy in power consumption and space, and with a reliability which may make maintenance and repair of electronic circuits a thing of the past. Thus it seems that the electronics industry is on the verge of expansion into great areas from which it has heretofore been excluded by considerations of cost and practicability."

Enrollment in the special summer program on transistors will be limited, and early application is recommended by Professor Huntress. Preference will be given to those having college specialization in physics or electrical engineering.

Further information and application blanks for the special summer program in transistors may be obtained from the Director of the Summer Session, Room 3-107, Massachusetts Institute of Technology, Cambridge 39, Mass.

V V

Operator Acts as Doctor Over Telephone at Baby's Birth

A telephone operator who played the part of a practical midwife by remote control was nominated for a national award by officials of the New York Telephone Co. on Apr. 22 at White Plains, N. Y.

Mrs. Evelyn Baker, 41, Valhalla, N. Y., was on duty at the Spring St. exchange on Apr. 2. At 11:09 a.m. a woman cried hysterically over the telephone that she wanted a doctor. She was unable to give her name, but Mrs. Baker identified her through her telephone number as Mrs. Dominick Fusaro of Hartsdale, a point about 5 miles from the telephone office.

Mrs. Baker put in a call for the police and at the same time engaged Mrs. Fusaro in conversation and learned that she was having a baby. As the operator had had five children of her own, she knew what to do in such an emergency, and proceeded to give Mrs. Fusaro the proper instructions. In due time the baby was born. Mrs. Baker then directed Mrs. Fusaro in post-natal care.

Policemen, who had sped toward the Fusaro home after Mrs. Baker's call, arrived shortly afterward. They summoned a physician and had the mother and child taken to a hospital.

Several days later Mrs. Baker received a note announcing the arrival of a healthy 6-pound girl. It also said: "Thank you for helping me into this world. Baby Lisa."

The "midwife of the wire," as company officials nicknamed her, recalled that one of her own babies had been born on a weekend at Copake, N. Y., while a doctor hurried to her on horseback in a storm.

V V

"Our long-range national security requires continued progress in research and development which can come only from dynamic and competitive privately owned industry."—JOHN L. COLLYER, president, B. F. Goodrich Co.

1953 CONVENTIONS

Indiana Telephone Association, Claypool Hotel, Indianapolis, May 13 and 14.

New York State Telephone Association, Mark Twain Hotel, Elmira, May 18, 19 and 20.

Kansas-Missouri Telephone Associations (joint convention), Town House Hotel, Kansas City, Kan., May 20, 21 and 22.

United States Independent Telephone Association Executives Conference, Edgewater Beach Hotel, Chicago, May 25 and 26.

North Dakota Telephone Association, Great Northern Hotel, Devils Lake, June 1 and 2.

Pennsylvania Independent Telephone Association, Pocono Manor Inn, Pocono Manor, June 3 and 4.

Oregon-Washington Independent Telephone Associations (joint convention), Chinook Hotel, Yakima, Wash., June 12 and 13.

California Independent Telephone Association, Ambassador Hotel, Los Angeles, June 18 and 19.

Michigan Independent Telephone Association, Pantlind Hotel, Grand Rapids, Sept. 3 and 4.

Tennessee Independent Telephone Association, Hermitage Hotel, Nashville, Sept. 17 and 18.

Arkansas Telephone Association, Majestic Hotel, Hot Springs, Sept. 21 and 22.

Rocky Mountain Telephone Association, Newhouse Hotel, Salt Lake City, Utah, Sept. 24 and 25.

United States Independent Telephone Association (annual convention), Conrad Hilton Hotel, Chicago, Oct. 12, 13 and 14.

Communications Section of the Association of American Railroads, Hotel Plaza, San Antonio, Tex., Oct. 20, 21 and 22.

North Carolina Independent Telephone Association, Carolina Hotel, Pinehurst, Oct. 22 and 23.

South Carolina Independent Telephone Association, Clemson House, Clemson, Oct. 26 and 27.

Virginia - West Virginia Independent Telephone Associations (joint convention), Roanoke Hotel, Roanoke, Va., Oct. 29 and 30.

Alabama-Mississippi Telephone Association, Thomas Jefferson Hotel, Birmingham, Ala., Nov. 9 and 10.

Florida Telephone Association, Sheraton Plaza Hotel, Daytona Beach, Nov. 12 and 13.

Georgia Telephone Association, Henry Grady Hotel, Atlanta, Nov. 16 and 17.

Oklahoma Telephone Association, Hotel Biltmore, Oklahoma City, Nov. 19 and 20.

REA Telephone Loan Applications and Allocations by States
(As of March 31, 1953)

State[4]	Applications on Hand as of Mar. 31, 1953	LOAN ALLOCATIONS[1]—CUMULATIVE TOTALS							
		Number of Borrowers	Total Amount	Pole Miles of Line			Number of Subscribers		
				Total	To Be Added[2]	Present[3]	Total	To Be Added	Present
United States . .	$95,854,861	222	$111,925,218	88,643	81,004	7,639	297,450	159,938	137,512
Alabama	4,073,490	7	2,603,000	1,671	1,379	292	10,115	6,377	3,738
Arizona	400,000	—	—	—	—	—	—	—	—
Arkansas	1,079,200	3	808,000	713	702	11	1,856	1,468	388
California	500,050	2	374,000	195	132	63	1,967	447	1,520
Colorado	1,605,000	1	223,000	132	132	—	401	315	86
Connecticut . . .	—	—	—	—	—	—	—	—	—
Delaware	—	—	—	—	—	—	—	—	—
Florida	80,040	3	1,131,000	435	404	31	2,445	1,985	460
Georgia	2,559,500	9	2,962,000	2,254	2,074	180	7,370	4,913	2,457
Idaho	286,000	1	265,000	226	226	—	483	362	121
Illinois	4,597,000	9	3,042,000	1,727	1,581	146	8,517	3,192	5,325
Indiana	4,083,049	9	10,112,000	4,347	3,441	906	26,986	8,660	18,326
Iowa	1,146,500	5	2,194,000	1,692	1,439	253	6,924	1,164	5,760
Kansas	4,803,424	12	5,473,000	5,336	5,049	287	12,986	3,435	9,551
Kentucky	2,260,400	11	6,972,000	4,529	4,497	32	19,206	12,252	6,954
Louisiana	2,266,425	10	4,273,000	1,429	1,282	147	12,501	7,550	4,951
Maine	315,000	3	570,000	350	338	12	1,442	495	947
Maryland	—	—	—	—	—	—	—	—	—
Massachusetts . .	—	1	165,000	46	43	3	605	202	403
Michigan	1,715,200	5	1,603,000	568	501	67	4,556	2,630	1,926
Minnesota	5,639,545	16	6,911,000	6,351	5,198	1,153	20,330	5,263	15,067
Mississippi	2,165,000	4	1,385,000	976	864	112	4,638	3,401	1,237
Missouri	6,382,072	5	3,297,000	3,307	2,272	1,035	12,158	2,931	9,227
Montana	3,377,000	3	3,942,000	6,262	6,189	73	5,368	4,713	655
Nebraska	636,000	—	—	—	—	—	—	—	—
Nevada	138,000	1	242,000	113	93	20	632	149	483
New Hampshire	—	—	—	—	—	—	—	—	—
New Jersey	—	1	943,000	316	161	155	3,146	1,622	1,524
New Mexico . . .	2,424,850	3	2,124,000	2,737	2,737	—	3,498	3,336	162
New York	750,000	2	481,000	177	142	35	1,469	333	1,136
North Carolina .	3,696,416	8	4,706,000	2,776	2,681	95	16,064	11,478	4,586
North Dakota . .	6,184,700	7	5,979,000	7,279	6,806	473	9,947	6,668	3,279
Ohio	425,000	2	370,000	293	293	—	1,038	758	280
Oklahoma	4,703,000	2	897,000	792	776	16	2,137	1,281	856
Oregon	312,000	4	1,762,000	867	867	—	4,756	2,901	1,855
Pennsylvania . .	810,000	1	125,000	75	22	53	500	130	370
Rhode Island . .	—	—	—	—	—	—	—	—	—
South Carolina .	848,950	11	5,363,000	3,641	3,376	265	11,741	8,584	3,157
South Dakota . .	4,147,520	2	1,763,000	1,720	1,711	9	3,774	1,292	2,482
Tennessee	5,135,785	13	4,955,000	2,908	2,826	82	14,999	10,399	4,600
Texas	10,175,856	21	15,050,218	16,803	16,596	207	32,396	26,843	5,553
Utah	25,000	4	1,780,000	1,043	891	152	4,918	3,241	1,677
Vermont	15,000	—	—	—	—	—	—	—	—
Virginia	1,754,000	5	1,344,000	962	804	158	3,541	2,736	805
Washington . . .	692,500	5	3,234,000	2,022	987	1,035	15,214	3,489	11,725
West Virginia . .	849,040	2	443,000	98	86	12	1,175	898	277
Wisconsin	1,725,205	8	1,967,000	1,431	1,377	54	5,315	1,811	3,504
Wyoming	988,300	1	92,000	44	29	15	336	234	102
Alaska	83,844	—	—	—	—	—	—	—	—
Virgin Islands . .	—	—	—	—	—	—	—	—	—

[1] Cumulative net loan allocations (rescissions deducted). Includes amounts not yet under loan contract.

[2] Includes pole miles of line to be constructed or rebuilt.

[3] Excludes pole miles of line to be rebuilt.

[4] State figures represent data for REA borrowers incorporated within the state.

As of Mar. 31, 1953, REA had allocated $35,014,218 to 111 commercial companies and $76,911,000 to 111 cooperatives. According to REA, the 111 commercial companies will add and rebuild 17,624 miles of pole line and will serve 62,166 present and 55,100 new subscribers. The 111 cooperatives will add and rebuild 63,380 miles of pole line; and will serve 75,346 present and 104,838 new subscribers. The same data, as of Feb. 28, 1953, published on page 12 of the Apr. 4 issue of TELEPHONY.

"What will the telephone be like when I grow up?"

It's hard to say, young fellow, but you can be sure there are great things ahead.

Today we telephone from moving automobiles, trains, airplanes and ships far out at sea. And radio microwaves beam telephone calls and television programs from tower to tower across the country.

The day is coming when you will be able to reach any telephone in the country simply by dialing a number.

Perhaps some day in the future you may just speak the number into the transmitter and get your party automatically.

BELL TELEPHONE SYSTEM

The Best Possible Service at the Lowest Possible Cost

Nationwide Toll Dialing

(Concluded from page 14)

Telegraph Co. (3); Enterprise Telephone Co. (4); Ferndale Telephone Co. (4); General Telephone Co. of Pennsylvania (16); Hershey Bell Telephone Co. (1); Kittanning Telephone Co. (8); Lycoming Telephone Co. (5); Mahanoy & Mahantango Telephone Co. (1); Middle Creek Valley Telephone Co. (1); North Pittsburgh Telephone Co. (4); Pymatuning Independent Telephone Co. (1); United Telephone Co. of Pennsylvania (2); York Telephone & Telegraph Co. (8).

South Carolina

Cassels Telephone Co. (1); Central Carolina Telephone Co. (1); Chesnee Telephone Co. (1); Harcan Telephone Co. (2); Pee Dee Telephone Co. (2); Seacoast Telephone Co. (2); South Carolina Continental Telephone Co. (1); Southeastern Carolina Telephone Co. (1).

South Dakota

Sokota Automatic Telephone Co. (1).

Texas

General Telephone Co. of the Southwest (3); Gulf States Telephone Co. (2); Lancaster Telephone Co. (1); Lochridge Telephone Co. (1); Lufkin Telephone Co. (1); Navasota Telephone Co. (1); San Angelo Telephone Co. (3); Southwestern States Telephone Co. (2); Texas Telephone Co. (1).

Virginia

Appomattox Telephone Co. (1); Clifton Forge-Waynesboro Telephone Co. (1); Princess Anne Telephone Co. (1); Roanoke & Botetourt Telephone Co. (2); Tidewater Telephone Co. (2); Virginia Telephone & Telegraph Co. (3).

Washington

Connell Telephone Exch. (1); Cowiche Telephone Co. (1); Ellensburg Telephone Co. (1); La Center Telephone Co. (1); McCleary Telephone Co. (1); Natchez Telephone Co. (1); Oregon Washington Telephone Co. (4); Selah Telephone Co. (1); Tri-County Telephone Co. (1); Vashon Telephone Co. (1); Yelm Telephone Co. (1).

Wisconsin

Amberg Telephone & Telegraph Co. (2); Fremont Telephone Co. (1); General Telephone Co. of Wisconsin (1); La Crosse Telephone Corp. (2).

V V

British Company Offers Coronation Souvenir

Bellman Management & Investments, Ltd., 45 Park Lane, W. 1, London, England, has extended an invitation to TELEPHONY readers who are either stamp collectors or who wish to give a child an inexpensive souvenir of Queen Elizabth II's Coronation. The company says that on Coronation Day, June 2, they are mailing souvenir letters from London, bearing airmail stamps of the New Coronation Commemorative issue, with a further selection of unused stamps in the envelope. They are also forwarding by "surface" mail (on the day of issue) one copy each of the British Magazine *Picture Post* and *Illustrated*. They say that these magazines will contain many Coronation color plates of particular interest to children.

Readers wishing to accept this offer should write airmail to the Bellman company at the above address and enclose $1.00 in currency to cover the cost and postal charges.

V V

Sound Device May Replace Vacuum Tubes

More than 100 electronics experts gathered at Pittsburgh's Carnegie Institute of Technology on Apr. 16 to study a powerful new sound device which may replace vacuum tubes.

The potential revolutionary discovery is called a dielectric amplifier. Its basic component is a simple ferro-electric material, silver-coated on each side, which is made from a compound of three elements—barium, strontium and titanium.

Prof. Gaylord W. Penny of Carnegie Tech said a wafer-like piece of the substance, ⅛ inch square and .007 inch thick, has the power output of most home radio tubes.

Wisconsin Independent Holds Employe Conference

The above pictures show the plant, commercial and traffic employes of the 15 exchanges plus all district managers of the Community Telephone Co. of Wisconsin, Black River Falls, and representatives of two connecting companies.

An afternoon conference, a buffet dinner and a joint evening meeting were enjoyed by approximately 60 company employes in addition to representatives of the Wisconsin Telephone Co. and the La Crosse (Wis.) Telephone Corp.

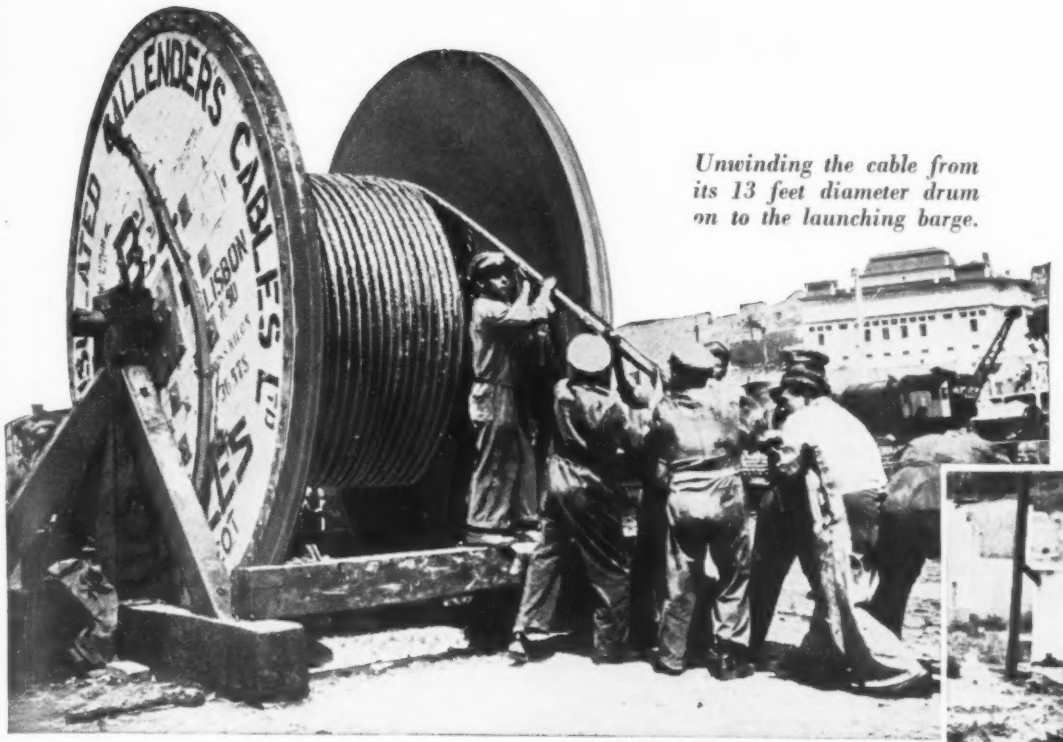
The afternoon plant conference included a group discussion led by F. F. Stalter, plant superintendent of the Community company and Frank Sauer, manager of the Wisconsin Telephone Co. at Eau Claire, Wis; then a film dealing with poison ivy and poison oak was shown.

The afternoon traffic and commercial conference included a group discussion led by A. W. Powell, commercial and traffic superintendent, and questions and answers on traffic problems by chief operators of the Eau Claire and La Crosse toll centers.

The joint evening meeting included a short talk by B. H. Piepmeier, vice president and general manager of the Community company, on "Courtesy" and the important part it plays among all employes and with the public. Frank Sauer closed the meeting with a few remarks after which he showed a picture on fire hazards and fire prevention.

V V

"The use of life insurance to provide protection and security carries with it a sense of doing something for one's self and his family. The same cannot be said for social security, unless social security becomes regarded as something which is bought and paid for on a basis comparable to life insurance."—HOLGAR J. JOHNSON, president, The Institute of Life Insurance.



Unwinding the cable from its 13 feet diameter drum on to the launching barge.

Pulling in the cable at the Terminal end.

Portugal's largest single-length telephone cable

A new submarine trunk-type telephone cable has been laid across the River Tagus at Lisbon by The Anglo-Portuguese Telephone Company Ltd. Specially manufactured by BICC, this 3-inch diameter cable is 2,406 yards long and is composed of 104 pairs of 20 lb conductors. It is the largest single-length cable ever supplied to Portugal and its installation has almost doubled the number of telephone toll circuits previously available across the Tagus.

This is a typical example of work constantly being undertaken by BICC to meet customers' specific requirements.

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Illinois Convention

(Concluded from page 25)

the other hand, if the public is paying a rate far in excess of what a just and reasonable rate should be, then the company should not be allowed to continue to collect this rate during long and protracted periods that are taken up by the hearings. . . .

"It is my intention . . . to call in for conference several of the attorneys representing the utility companies throughout the state with the idea of sitting down around a table and trying to work out some new method of procedure that will expedite hearing of rate cases. I expect to call in my own staff of accountants, engineers and also other members of the commission to sit in on these conferences. It is my desire and earnest hope that out of these meetings and conferences a new expeditious procedure may be arrived at for hearing rate cases."

Small telephone companies came in for attention by the commission chairman, the records of many of which he has examined since becoming chairman of the commission. On this score he said:

". . . In many instances these smaller companies . . . have not been able to earn sufficient funds in order to pay dividends to the investors. Many of these small companies' plant and equipment can no longer be considered obsolescent—in most instances these plants are almost 100 per cent obsolete. The reasons for this condition are numerous.

"Suffice it to say here that it is not the result of *bleeding* the companies to pay exorbitant dividends and salaries. It is true that most of these companies have been well operated in the past and were able to earn money and serve the community in which they are located fairly well according to past standards. But during this present inflationary economy, in which we are now living, many of the formerly *"money-making"* telephone companies serving these smaller communities have fallen by the wayside. . . .

"So I say to you small companies that . . . have financial troubles—try to put your house in order before you come to the commission for rate adjustments. If you need advice as to how to accomplish this, come to myself or the members of the engineering or accounting staffs and ask for that advice. . . . When you have placed your house in order, so that you feel reasonably sure that your community is receptive to the type of service you propose to offer . . . then you should come to us with your rate problem and I assure you that so long as I am chairman of the commission we will expeditiously handle those problems to the end that your company will be soon operating in a sound financial way."

The convention program proper closed with an address by Dr. William H. Alexander of Oklahoma City, Okla., who spoke on the subject "Our Moral Needs."

The convention re-elected the following directors: R. J. Alter, Galesburg; Harry H. Bates, Dixon; Donaldson Coombes, St. Louis, Mo.; W. C. Drysdale, Rantoul; J. I. Kennedy, Freeport; and M. A. Kugler, Okawville.

The directors elected the following officers: President, Mr. Alter; vice president, Gordon Aller, Chicago; treasurer, R. B. Still, Bloomington; secretary, J. G. Hardy, Springfield, and general counsel, Ben B. Boynton, Springfield.

During the convention the annual association's traffic conference was held under the direction of R. R. Long, Pekin, district traffic superintendent, Middle States Telephone Co. of Illinois. Appearing on the traffic program were N. R. Ebert, Springfield, chairman of the traffic committee; C. H. Tibble and F. J. Woldt, both of Chicago.

V V

Everitt Named to Committee Studying Bureau of Standards

The Institute of Radio Engineers has nominated Dr. William L. Everitt, renowned radio authority and dean of the College of Engineering, University of Illinois, to serve on a committee of scientists formed at the request of Secretary of Commerce Sinclair Weeks to evaluate the present functions and operations of the National Bureau of Standards in relation to the present national needs.

The nomination came as a result of telegrams sent by Secretary Weeks to leading scientific and engineering societies requesting each to select one of their members to serve on the committee. Dr. M. J. Kelly, president of Bell Telephone Laboratories, will serve as chairman of the committee.

Other societies contacted by Mr. Weeks were the American Institute of Electrical Engineers, American Institute of Mechanical Engineers, American Society of Civil Engineers, American Institute of Physics, American Chemical Society, and the American Institute of Mining and Metallurgical Engineers.

Dr. Everitt's nomination was made only after assurance had been received from Secretary Weeks that the committee will operate under the National Academy of Sciences, that it will not be concerned with personnel relationships between the National Bureau of Standards and the Department of Commerce, and that the report of the committee will be made public.

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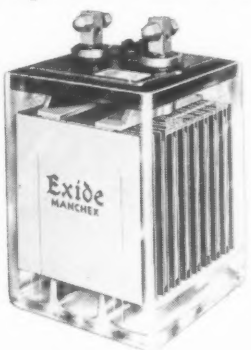

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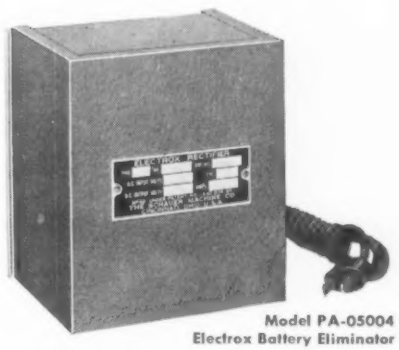

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Public Utility Regulation

(Continued from page 17)

turn. This formula has caused almost as much controvery in the field of utility rate regulation as the arguments over rate base and depreciation I have already covered. The rate of return is that amount of money, usually expressed in the form of a percentage of the rate base, which a utility company is permitted to earn through its charges to the public for service—over and above operating expenses including taxes. It might roughly be compared with the "profits" of the non-utility industrial company. But while the industrial company generally tries to make as much profit as it can, subject only to the restraint of market demand, trade competition, etc., the regulated utility can only make as much return as the regulatory commission decides is reasonable. And there is, of course, no regulatory guaranty that it will do so. It is merely a fishing license, so to speak, defining the upper limit of the utility's earning power and its consequent effect upon rates charged the public.

The "cost-of-money" formula restricts the utility's return to the ceiling on earnings based upon the composite cost of funded debt (bonds), preferred stocks, and junior capital (common stocks) financing. The theory is that whatever the utility company has to pay in the money market to secure the necessary capital investment to carry on the service, and make necessary plant improvements, that shall be the reasonable limit of its earnings. Sometimes, as in several Bell System rate cases, the "cost of capital" has been related to the particular utility company's financial experience. In other cases, average experience of comparable utility companies has been used.

There is neither time nor point in reciting to you all of the recent cases in which cost of capital has been used by the regulatory commissions to limit a utility's return. Just skimming the high lights, the New York commission did this in *Re* Rochester Telephone Co. 92 PUR NS 33. The Kentucky Court of Appeals upheld this formula in Citizens Telephone Co. *v.* Public Service Commission, 247 SW2nd 510. The Michigan commission took the same view in *Re* Michigan Bell Telephone Co. 91 PUR NS 129. The most controversial of these cost of money cases, however, were decisions of the Federal Power Commission, decided in mid-1952: *Re* Northern Natural Gas Co. 95 PUR NS 289, and *Re* Colorado Interstate Gas Co. 95 PUR NS 97.

The objection to the cost-of-money theory arises where it is used as the *exclusive* factor in fixing the return. The claim is made that it restricts future opportunities for earnings and growth of stock equity to a past cost-of-capital experience, and substitutes the judgment of stock market for utility securities for the economic judgment of the commission based on other return factors. The reaction in financial circles to the two gas rate decisions by the FPC was so adverse that the recent poor market for natural gas securities has been blamed by some market experts directly on these two decisions. The commission itself apparently feels some responsibility about this as evidenced by addresses made by former FPC Chairman Buchanan, and more recently by FPC Vice Chairman Nelson Lee Smith, to security analyst groups in New York and Philadelphia. The cost-of-money theory was repudiated as unsound by the Illinois Supreme Court in the Illinois Bell Telephone Co. Case, already mentioned, decided on Jan. 22, 1953.

No discussion of recent trends in public utility regulation, however brief, would be complete without some mention of the appearance of public ownership, especially in the electric power field. Former President Herbert Hoover, addressing the Case Institute of Technology's diamond jubilee in Cleveland on Apr. 11, referred to this development as "creeping Socialism." He recalled that the federal government's own stake in electric power operations in the United States has risen from almost nothing to over 12 per cent of the nation's generating capacity and is planned to exceed 20 per cent.

The legality of federal government activity in this field is commonly regarded as having been settled by the old litigation growing out of the establishment of the Tennessee Valley Authority and the Public Works Administration loans and grants during the early New Deal. But actually those older cases of the thirties left the question of federal government activity in the utility business in an uncertain state, because they went off on the point of whether suits were properly brought by parties having a right to raise constitutional questions.

I am not suggesting that these old issues will ever be reopened. But the role of the federal government itself, in this, is far from clear. On one hand, the federal government is an umpire, a regulator of interstate gas and electric operations through the agency of the Federal Power Commission. On the other hand, it is also a business operator and a competitor of the electric companies through the agency of the Interior Department, Reclamation Bureau, and other public power agencies.

This anomalous position led to a very interesting and important case decided just last Mar. 16, involving litigation by these two agencies. The FPC three years ago undertook to license the Virginia Electric & Power Co. to build a hydroelectric dam on the Roanoke River. The then Secretary of Interior, Oscar L. Chapman, objected that Congress had intended, and impliedly authorized, direct federal development of that river. Without going into details, the final result was a ruling by the U. S. Supreme Court (6 to 3) in favor of the Federal Power Commission and the licensee (Virginia Electric & Power Co.).

The importance of this so-called Roanoke decision, 97 PUR NS 129, is obviously more far-reaching than simply a determination of which agency (public or private) is going to build dams on the Roanoke River. In this case, we have a definite admission by the Secretary of the Interior that the United States Government was engaged as a business competitor with the Virginia utility. If the Interior Department contentions had prevailed (as interpreted in the dissenting opinion of Justice Douglas), the Secretary of Interior would have been in a position to preempt for public development any hydro site which might be part of a general basin plan approved by Congress, even by inference or implication. This would have reduced the FPC to a mere administrative bureau, to carry out over-all policy decisions of the Secretary of Interior. FPC's status as an independent licensing agency would be at an end.

In conclusion, I would like to leave a thought with members of the bar who might be thinking about public utility practice. It is apparent that the impact of inflation and the resulting economic pressure are increasing the lawyer's work in this field. Up to the end of World War II, there were probably not more than a handful of lawyers in the United States who had actually had the responsibility of preparing a full-dress rate case, and in litigating it to a court of last resort. The reason for this was the informal attitude which used to prevail among the regulatory commissions. Rate cases and other differences were largely settled by compromise and conference.

Commenting on the change of tempo,

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which has come over regulatory practice in recent years, an outstanding specialist in this field, William A. Hill, attorney for several utilities throughout New England, writing in the Harvard Law School Record on Feb. 22 of this year, said: "In those days the commission was akin to the respected policeman on the beat who seldom had occasion to be tough."

Today, I must confess, all that has been changed.

There are dozens of formal public utility rate cases going on all over the country which involve requests for increases going into millions and tens of millions of dollars. On the FPC gas rate docket alone, a backlog of requested increases recently exceeded $100,000,000. And the activity of the specialized legal profession has increased accordingly. The Section of Public Utility Law of the American Bar Association, which now numbers more than 1,000 members, has done and will, I hope, continue to do a great deal to disseminate current information as to development of the law in both federal and state fields of regulation, not only for the benefit of its own membership, but for the neophyte and nonspecialist members of the bar.

This brings me to the point of practical advice that I would leave with you. The young lawyers and law students undertaking a field of practice can well give serious consideration to the possibilities of public utility regulation. In this connection it should be stated that something more than a passing knowledge of accounting is essential, and a good background of economics is likewise a necessary fundamental. It would be rash for me to attempt to predict when or whether public utility regulation will ever again settle down to a stable and informal relationship between the regulators and the regulated, even assuming that present inflationary conditions subside. The best that can be said is that public utilities are in a state of economic flux, and require a great deal of continuous and expert advice from all professions, especially that of the law.

Verbum sat sapienti!

V V

"America is a little like Noah's Ark. It is sailing some uncharted and dangerous seas. And the passengers have come from every land in the world. For us the promotion of brotherhood is a necessity. With our heterogeneous population we must actively try to be tolerant, to see others' point of view—or we will all be in peril."—Garden City (N. Y.) *News*.

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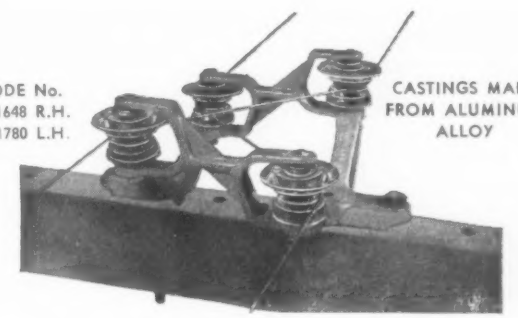

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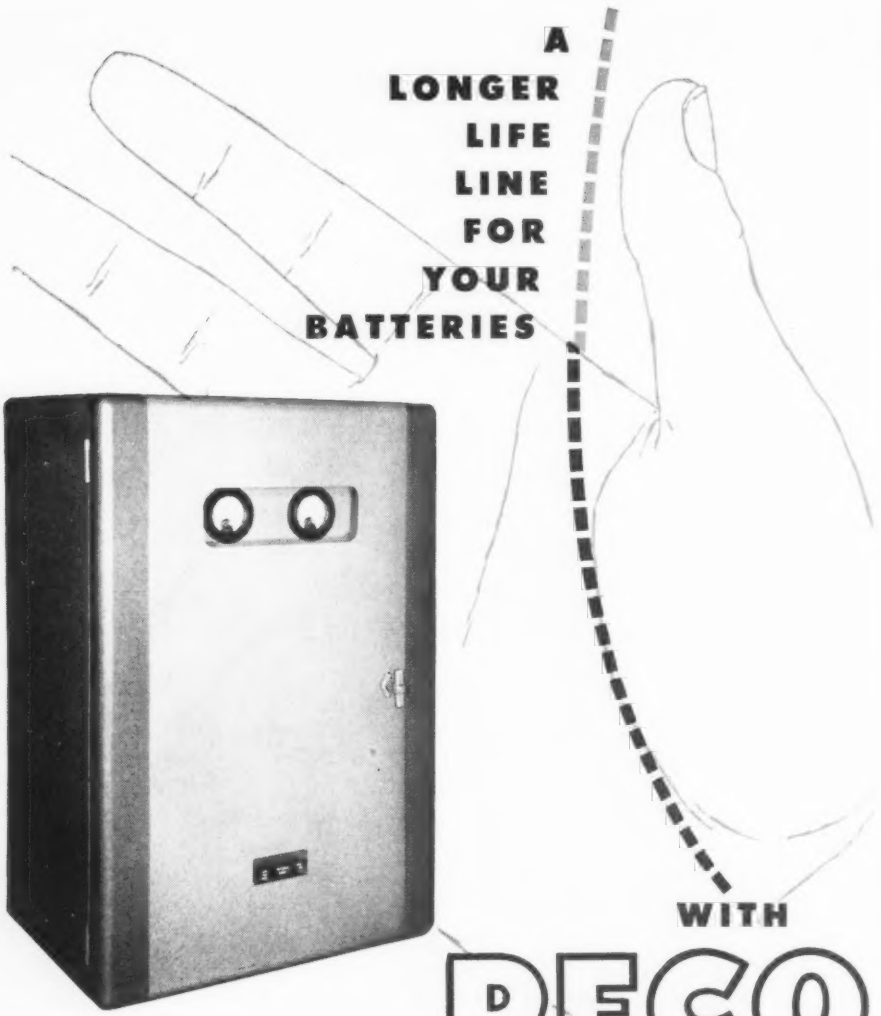

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Exceptional reliability is shown by the fact that if the electronic control section should be disconnected, the magnetic control section will still automatically hold the output voltage to within ± 3 per cent of nominal voltage.

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Foreign News

Egypt: A five-year program of telecommunications developments, estimated to cost £E5,150,000 has been announced by the recently established coordination committee of the Egyptian Ministry of Communications charged with developing plans for improving communications facilities.

This program in effect confirms earlier planned developments which had to be postponed because of budgetary difficulties.

The plan includes the establishment of a Cairo-Alexandria coaxial cable; construction of a radio receiving and transmitting station to replace the existing service of Marconi Radio Telegraph Co. of Egypt; four telephone exchanges with a total of 28,000 lines for Cairo; a 4,000-line telephone exchange for Alexandria, and smaller telephone exchanges in Upper and Lower Egypt.

* * *

Indonesia: According to the director of the Indonesian Bureau of Posts, Telephones & Telegraphs, it is believed that the telephone system in Djakarta will not be changed for at least five years. Its population has increased fivefold since 1940, and the demand for telephones has increased tenfold.

The older parts of the city require complete rewiring, and the new outlying districts have never been wired.

* * *

Calcutta-London—The first wireless telegraph service between Calcutta and London was inaugurated on Mar. 12.

This direct circuit is a part of India's five-year plan for modernization of its communication services. Previously, all foreign telegrams except those to Pakistan, Burma, and Ceylon from West Bengal, Bihar, Orissa, and Assam were transmitted to Bombay for onward transmission.

The country's overseas communication service has greatly improved in the past five years, according to the communications minister. India had five direct services in 1947, whereas it now has 15 radio-telegraph and radio-telephone services to the United Kingdom, the United States, Afghanistan, Japan, Thailand, Indonesia, China, Australia, Egypt, Iran, and U. S. S. R. More than 30 per cent of India's foreign traffic to the United Kingdom is sent from Calcutta.

V V

» It has been said that faith is ability to see possibility in the impossible.

Travelers Tells of Worst Auto Accident Year—1952

More than 2 million casualties, the worst automobile accident toll in the nation's history, were recorded in 1952, according to figures released recently by the Travelers Insurance Companies.

Last year's traffic deaths totaled 37,600, an increase of 500 over the 1951 mark. The injury count soared to 2,090,000, more than 127,000 over 1951, the Hartford company reported.

The death and injury totals are highlight statistics from "Who, Me?," 19th in an annual series of traffic accident data booklets published by The Travelers. Company statisticians collect and analyze accident facts from each state.

The most dangerous mistake in driving last year was excessive speed. Speed killed 13,430 persons and injured nearly 600,000, according to the report. Drivers under 25 years old were involved in almost 25 per cent of the year's fatal accidents although they constitute only about 15 per cent of the total of all drivers.

More than 15,000 persons were killed and nearly 750,000 hurt in weekend crashes in 1952. Forty per cent of the deaths and 36 per cent of the injuries occurred on Saturdays and Sundays last year.

It was the second consecutive year of improvement in the pedestrian record. Figures from the booklet show that pedestrian casualties were reduced by more than 8 per cent in 1952. Cross-in gbetween intersections, "jay walking," still is the chief cause of pedestrian deaths and injuries.

Other facts from "Who, Me?" are:

Three out of four 1952 auto accidents happened to passenger cars driving in clear weather on dry roads.

Eighty per cent of vehicles involved in fatal accidents were traveling straight ahead.

Saturday was the most dangerous day of the week to drive.

1952 was the third consecutive year of increase in the death toll.

V V

"The fact that most needs to soak in upon all of us right now is this: if we look to our government for security, then we have no security—for what the government can give us the government can also take away." — Hagerstown (Md.) *Morning Herald*.

V V

» The glory of Christianity is that it gives us tasks beyond our strength, and then gives us strength to do them.— G. K. CHESTERTON.

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United Utilities Acquires Two-Thirds Investors Stock

United Utilities, Abilene, Kan., acquired two-thirds of the common stock of Investors Telephone Co., Chicago, on Apr. 24 (TELEPHONY, Mar. 21, p. 17).

The following were elected as directors and officers of Investors Telephone Co. and its operating subsidiaries, effective Apr. 24.

Investors Telephone Co. Directors: R. C. Kemper of Kansas City, Mo.; Alden L. Hart of Kansas City, Mo.; Gustav Hirsch of Columbus, O.; Donald McM. Mong of Newton, Iowa, and A. Z. Patterson of Kansas City, Mo.

Officers: President, Mr. Hart; vice president and general manager, Mr. Mong; vice president, C. A. Scupin of Abilene, Kan.; secretary and treasurer, James L. Rose of Newton, Iowa, and assistant secretary and assistant treasurer, Fred Pyle, also of Newton.

Arkansas Telephone Co., Warrensburg, Mo. *Directors:* Mr. Hart, Mr. Mong and George Hearne of Warrensburg.

Officers: President, Mr. Hart; vice president and general manager, Mr. Hearne; vice president, Mr. Mong; secretary and treasurer, Mr. Rose, and assistant secretary and treasurer, Mr. Pyle.

Central Missouri Telephone Co., Warrensburg, Mo. *Directors:* Messrs. Hart, Mong, Hearne, Rose and Pyle.

Officers: President, Mr. Hart; vice president and general manager, Mr. Hearne; vice president, Mr. Mong; secretary and treasurer, Mr. Rose, and assistant secretary and assistant treasurer, Mr. Pyle.

Platte Valley Telephone Co., Scottsbluff, Neb. *Directors:* Messrs. Hart, Mong, Pyle, Rose, and Otto Fuerst.

Officers: President, Mr. Hart; vice vice president, Mr. Mong; vice president and general manager, Mr. Fuerst; secretary and treasurer, Mr. Rose, and assistant secretary and assistant treasurer, Mr. Pyle.

Central Carolina Telephone Co., Southern Pines, N. C. *Directors:* Messrs. Hart, Mong, Rose, Pyle, and George Thompson.

Officers: President, Mr. Hart; vice president, Mr. Mong; vice president, John E. Cline; general manager, Mr. Thompson; secretary and treasurer, Mr. Rose, and assistant secretary and assistant treasurer, Mr. Pyle.

Sussex Telephone Co., Newton, N. J. *Directors:* Messrs. Hart, Mong, Rose and Pyle, and Vern E. Larson and Bernard C. Bale.

Officers: President, Mr. Hart; vice president, Mr. Mong; vice president and general manager, Mr. Larson; secretary and treasurer, Mr. Rose, and assistant secretary and assistant treasurer, Mr. Pyle.

Iowa State Telephone Co., Newton, Ia. *Directors:* Messrs. Hart, Mong, Rose, Pyle, and Larry Travis.

Officers: President, Mr. Hart; vice president, Mr. Mong; vice president and general manager, Mr. Pyle; secretary and treasurer, Mr. Rose, and assistant secretary and assistant treasurer, James Searl.

V V

Michigan Independent Installs 70,000th Telephone

The Union Telephone Co., Owosso, Mich., on Apr. 28 installed its 70,000th telephone in the home of Mr. and Mrs. Richard Fairbanks, of Owosso.

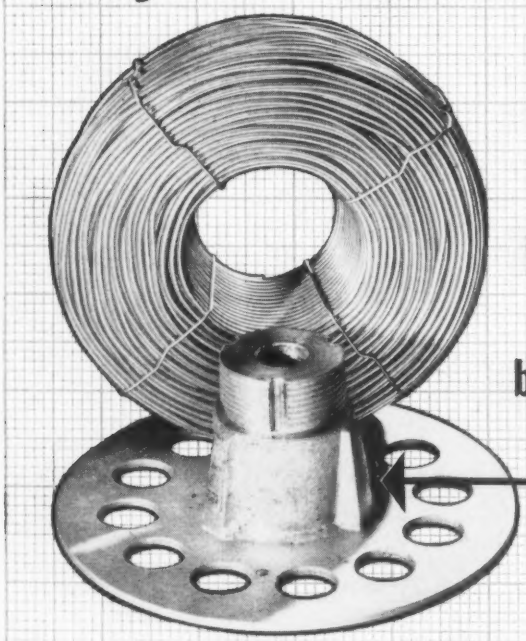
Present at the installation was R. D. Trezise, Owosso district manager, and Clyde Greenman, installer. This installation represents the 40,000th telephone installed by the Union company since 1940.

The company gained 4,588 stations in 1952.

V V

>> Today is the tomorrow you worried about yesterday.

Why the Hub is Tapered!



Lashing Wire Coiled to Fit Taper

Taper Formed by Easy-to-Modify Lugs

● The illustration shows how the hub of the Neale Spinner wire spool is tapered and how Neale lashing wire is coiled—so it will fit on this tapered hub *only the right way.* This design prevents reverse pay-out and back-lashing, and is your assurance of fool-proof operation.

Though not recommened, it is easy to modify lugs for wire coiled on straight hubs.

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CABLE SPINNING

Equipment Company PHONE 2-7234

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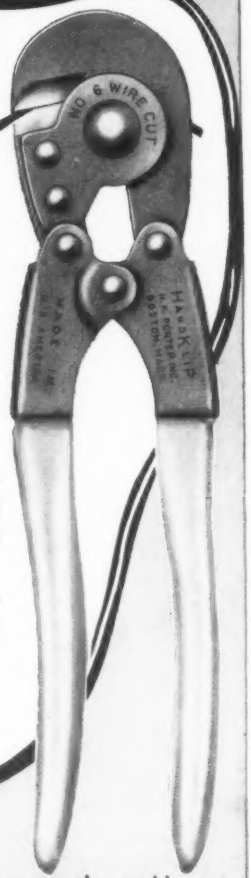
PORTER WIRE CUTTERS



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Boston	Dallas	Indianapolis	Minneapolis	Providence	
			Newark	Rochester†	(†sales
			New Orleans	St. Louis	office only)

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FROM OUTSIDE TELEPHONE BOOTHS

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lights on at dusk... lights off at dawn!
Automatically!

No more lost revenue hours when the Ripley Light Watchman automatically turns phone booth light on at dusk, off in the morning. Easily seen from a distance, a lighted booth encourages the timid, especially women, who hesitate to enter a dark booth at night.

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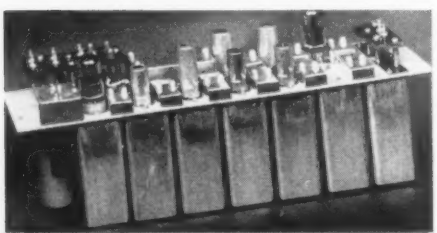
Nearly 5 years operational tests in the Southwest.

Manufactured by communications people with nearly 30 years' experience.



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Manufacturing Corp.

LITTLETON, MASSACHUSETTS, U.S.A.

JAMES E. ELAM (left) and MARSHALL SMITH (third from left), two General Telephone Directory Co. salesmen, hold "Oscar" awards presented to outstanding salesmen in the Midwest for the year 1952 at a meeting of the Sales Executives Club of Chicago. Also in the picture, are CHARLES T. LIPSCOMB (second from left), president of the Pepsodent division of Lever Brothers, who gave the principal speech, and V. E. LOGAN, Remington Rand, Inc., vice president of the Club.

Two General Men Among 100 Outstanding Midwest Salesmen

Two salesmen for General Telephone Directory Co. have recently been cited as being among the 100 outstanding salesmen in the Middle West for the year 1952.

They are Marshall Smith of Lexington, Ky., who is sales supervisor for the state of Kentucky, and James E. Elam, who holds a similar position for the company in the Michigan area.

Messrs. Smith and Elam were recognized at the recent annual banquet of the Sales Executives Club of Chicago and their awards hailed them as "outstanding revenue producers" in their respective territories. Each man was presented with an appropriately engraved sales "Oscar" by V. E. Logan, Remington Rand Inc., who is vice president of the club. The main address of the evening was delivered by Charles T. Lipscomb, president of the Pepsodent division of Lever Brothers.

The awards were particularly noteworthy considering the relatively brief periods of time the men have been with the General company. Mr. Smith joined the organization in 1950 and Mr. Elam a year earlier.

V V

Joins Automatic Electric's Sales Engineering Staff

Christian Christensen, formerly a member of the equipment engineering department of Automatic Electric Co., was appointed staff sales engineer of Automatic Electric Sales Corp. on Apr. 20. Announcement of the appointment was made by L. H. Warner, president of the sales company.

In his new position, Mr. Christensen will work with engineers and managers of Independent telephone companies on matters of central office conversions, local and toll switching, and other equipment and plant requirements.

Mr. Christensen's service with Automatic Electric dates from 1928, when he entered the drafting department as a cable designer. Later, he became supervisor of the cable design section. In 1939 he was transferred to the equipment engineering department where he became engaged in exchange engineering and equipment design assignments. In the course of this work he had the opportunity of working with many of the company's important customers, and became familiar with the operating requirements of exchanges of various types.

C. CHRISTENSEN

Mr. Warner states that this most

recent addition to the Automatic Electric sales engineering staff is in line with the policy of the company of maintaining its engineering service to customers at a high level of effectiveness.

V V

Stromberg-Carlson Appoints J. E. Garner

John E. Garner has been appointed equipment design supervisor for systems engineering of Stromberg-Carlson Co., according to John Voss, chief telephone engineer.

Mr. Garner brings to his new post experience in several branches of the telephone industry. Born in Allen-

J. E. GARNER

town, Pa., he specialized in electrical engineering at the University of Pittsburgh. In 1940 he joined the Western Electric Co. as an installer out of the Philadelphia office on the New York to Harrisburg coaxial cable. He was a group supervisor for the exchange and associated toll board at Indiantown Gap Reservation near Lebanon, Pa. After this came several step-by-step equipment installations in the coal regions of eastern Pennsylvania.

In 1942, Mr. Garner volunteered for duty with the Signal Corps. His experience led to an assignment in Hawaii, where he worked on the installation of VHF fighter fighter control systems.

After the War he returned to the telephone industry, spending four years in Havana, Cuba, in charge of assembly processes and installation of a new 10,000 line exchange for Cutelco. When this office was put in service, he returned to the United States to become equipment engineer for an Independent telephone manufacturer.

Mr. Garner also was building and equipment engineer for a large operating group.

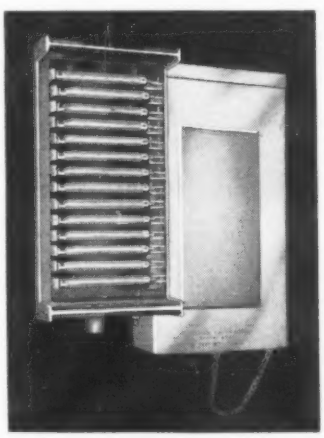
AUTOMATIC'S PROTECTED CABLE TERMINALS NOW USE "DOLLAR-SAVER" DISCHARGE BLOCKS

Automatic's new Type 70 "Dollar-Saver" discharge block lasts for an exceptionally long time because its bi-metallic element is self-grounding and does not gradually burn away with each discharge. It needs no attention as it is self-resetting. It remained undamaged through an 11,000-volt test which destroyed blocks having metal sawteeth alone!

Type 35 Protected Cable Terminal

Lasting, sturdy construction. Each pair has two 3-amp. fuses, two "Dollar-Saver" discharge blocks with .0055" gaps.

Cat. No.	Pairs	6', 24-ga. stub.	Ship. Wt.
SA-38	11	no	21 lbs.
SA-39	11	yes	24 lbs.
SA-40	16	no	25 lbs.
SA-41	16	yes	28 lbs.
SA-42	26	no	32 lbs.
SA-43	26	yes	36 lbs.



Type 40 Protected Cable Terminal

Mounts easily on pole, or on building, where it eliminates drops. Reversible cover permits leading cable in from top or bottom. Seven pairs each consist of two 3-amp. fuses and two "Dollar-Saver" discharge blocks with .0055" gaps.

Cat. No.	6', 24-ga. stub.	Size	Shipping Wt.
SA-34	no	7¼x4¾x14"	20 lbs.
SA-35	yes	7¼x4¾x23½"	24 lbs.

For helpful data on our full line of protective equipment, send for new Catalog 4068-B today!

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